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CONFIDENTIAL

CANADA

EMPLOYMENT FORECAST SURVEY

FIRST REPORT

February, 1956

Projections of employment indexes to April 1, and July 1, 1956 for manufacturing industries, and other selected industries, based upon quantitative forecasts made by approximately 800 establishments, with supplementary qualitative data, tables and charts.

DEPARTMENT OF LABOUR

ECONOMICS AND RESEARCH BRANCH

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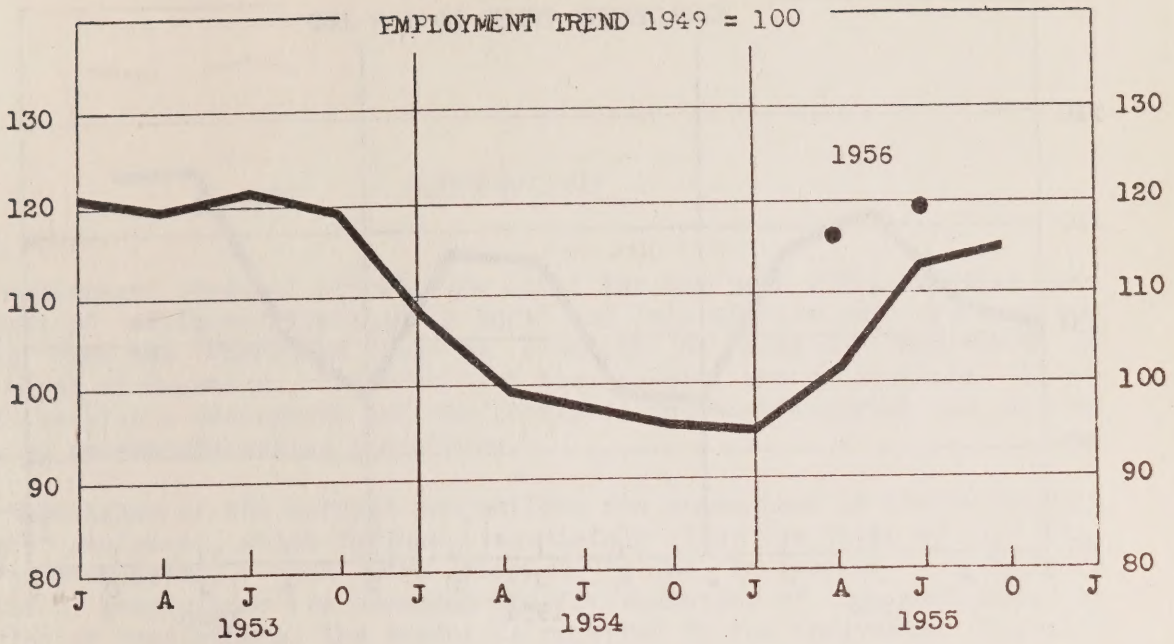
D.G. HARTLE

ERRATA -

Corrected graphs, Employment Forecast Survey, First Report, February 1956.

PRIMARY IRON AND STEEL

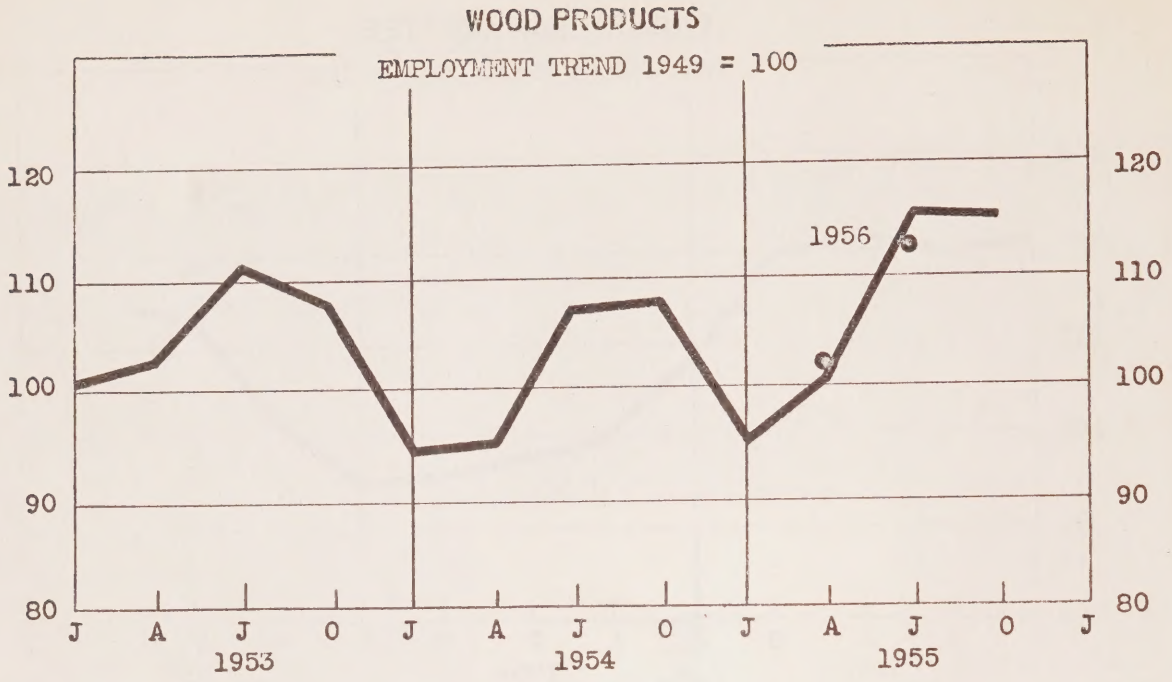


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	114.9	+20.8	-
Projected to Apr. 1/56 (3 mo. fcst's)	116.0	+14.4	+ 1.0
Projected to July 1/56 (6 mo. fcst's)	118.9	+ 5.7	+ 3.5

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	5.23	4.59	9.84	7.90
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	12/16	3/4	11/16



INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	115.4	+ 7.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	102.0	+ 1.3	-11.6
Projected to July 1/56 (6 mo. fcst's)	112.6	- 2.5	- 2.4

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.91	4.61	2.44	5.75
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	2/4	11/16

FOREWORD

This employment forecast report, the first for the year 1956, provides projections of employment indices to April and July of this year derived entirely from the forecasts made by a sample of some 800 employers in the month of December. Included in the report are projections of the latest available employment indices (revised) for manufacturing and certain selected non-manufacturing industries.

The highlights of the current projections are summarized in the"Employment Outlook" statement, which follows immediately after the Table of Contents. For greater detail, both with respect to the individual industries for which projections are provided and for summaries of the past accuracy of similar projections, the reader is referred to the individual industry charts and tables provided in the body of the report.

A Section on "Concepts and Methods" is included as a guide to the interpretation of the projections. Henceforth, this section will appear in the first quarterly report each year. In the three subsequent reports for 1956, any deviation from the methods outlined in the current report will be described in the section entitled "Notes".

Actual employment indices for all industries and industry groups have been adjusted for strikes. The indices for total manufacturing and manufacturing industrial groups have been seasonally adjusted, but indices for individual industries have not been seasonally adjusted.

The employment projections for department stores have been restored to this report after their deletion last quarter. The sample has been improved and it has been found possible to base the projections for this series on the "Standard Method", rather than upon the actual employment of the E.F.S. sample, as was done heretofore.

The "Employers Comments" which usually have appeared in the E.F.S. reports are not included in the current report. Several alternative procedures, designed to give the interview reports of field representatives both wider circulation and more extensive coverage, are being considered. Until such time as this matter is clarified, recipients of the E.F.S. report may secure on loan complete copies of these interview reports for selected industries upon request.

The analysis of the "Employment and Unemployment Outlook", which previously appeared in the E.F.S. report, is now published as a separate report twice a year and is available upon request.

CHARTS AND GRAPHS

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GENERAL EMPLOYMENT OUTLOOK

April 1, and July 1, 1956

The seasonally adjusted index of employment in the manufacturing industries has been rising steadily since the trough was reached in the fall of 1954. By October 1955, as the accompanying chart shows, employment in this group of industries had returned to the level of October 1953. If the employment projections derived from the most recent forecasts of firms and establishments in the Employment Forecast Survey are realized, the all-time employment peak in manufacturing attained in the spring of 1953 will be regained or surpassed between the months of April and July of this year.

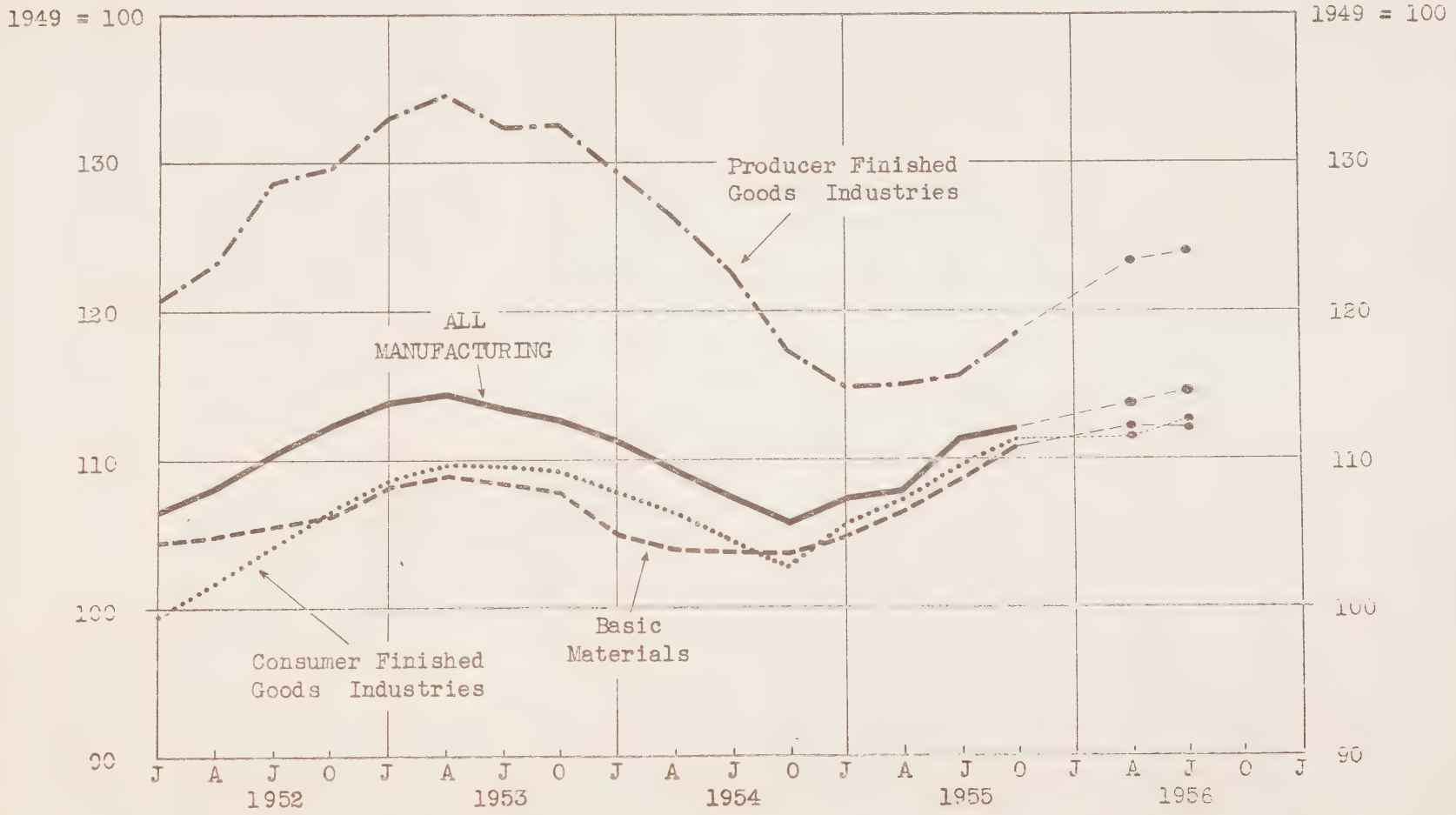
Employment in the manufacturing industries usually declines seasonally by about 4 per cent from October to April. The current projected index for April suggests that the decline this season will be less than 2.5 per cent. The July projection for manufacturing employment indicates that, rather than the customary seasonal drop in employment of about 1 per cent from October to July, employment will increase by 1 per cent over this interval. Should actual employment behave in this way there will be, therefore, a seasonally adjusted increase of nearly 2 per cent from October to April and a further rise of approximately one-half of one percentage point from April to July. The projected indices indicate year-to-year increases of 5.3 per cent at April and 3.8 per cent at July.(1)

An indication of the change in business sentiment towards greater optimism can be gained from a comparison of the projected index of manufacturing employment for April 1, 1956, based on the forecasts made by employers last September, and the projected employment index for the same date derived from the forecasts given by the same employers last December. The earlier forecasts resulted in a projected index of 108.9 at April 1, 1956. Three months later these employers had raised their forecasts to give a projected April index of 112.1--an increase of 3 per cent.

Two of the three industry group components of manufacturing, basic materials and consumer finished goods industries, had surpassed their 1953 employment peaks by the end of last summer. The projected employment indices for basic materials indicate that this increase will continue until April, with a projected increase of 1.2 per cent (seasonally adjusted) from October to that date. On the other hand, the projected index for July suggests that there will be no gains (seasonally adjusted) for this industry group after April 1. The reverse situation is found in the projections for the consumer finished goods industry group. The April projection indicates no change (seasonally adjusted) from the October level, while the July projection shows a small increase (seasonally adjusted) from April to July of this year.

(1) This and subsequent footnotes appear in the section entitled "Notes", found on pages 52 to 53.

DESEASONALIZED MANUFACTURING EMPLOYMENT, AND SELECTED COMPONENTS, 1952 TO DATE
(With Projected Employment on April 1 and July 1, 1956)



Note: The data are taken from monthly machine runs provided by the Labour and Prices Division, D.B.S., and have been strike adjusted. The moving seasonal indexes were computed by the Economics and Research Branch of the Department of Labour. Projections are from the first quarterly Employment Forecast Survey, 1956.

Within the consumer finished goods industry group the largest year-to-year increases are projected for the durable goods industries, with an increase of more than 7 per cent given for April and an increase of more than 5.5 per cent indicated for July. As would be expected, the projected year-to-year increases in the employment of the industries producing non-durable consumer goods are considerably smaller. The projected indices at April and July suggest increases in employment of 2 and 1.5 per cent, respectively, over the previous year.

The 1953 employment peak in the producer finished goods industry group coincided with the peak in manufacturing as a whole and with the peaks in the other two components; however, it lagged the other series in the recent upturn by at least one quarter. As the chart indicates, the other two components of manufacturing had surpassed their 1953 peaks last fall, but in October the level of employment in the producer finished goods industry group was still nearly 12 per cent (seasonally adjusted) below its previous level.

The projected employment indices for the producer goods industry group show increases in employment from October of roughly 4 and 5 per cent (seasonally adjusted) to April and July, respectively. The same projections also show that there will be year-to-year increases of over 7 per cent (seasonally adjusted) at both dates, if they are realized. Nevertheless, even if these substantial projected increases are achieved, the recovery in the employment of this industry group will still fall behind that of the other components.

The projected year-to-year changes at July 1, 1956 in the individual manufacturing industries are shown in the accompanying bar chart. Decreases in employment are projected for only four industries: wood products, shipbuilding, aircraft and printing and publishing.

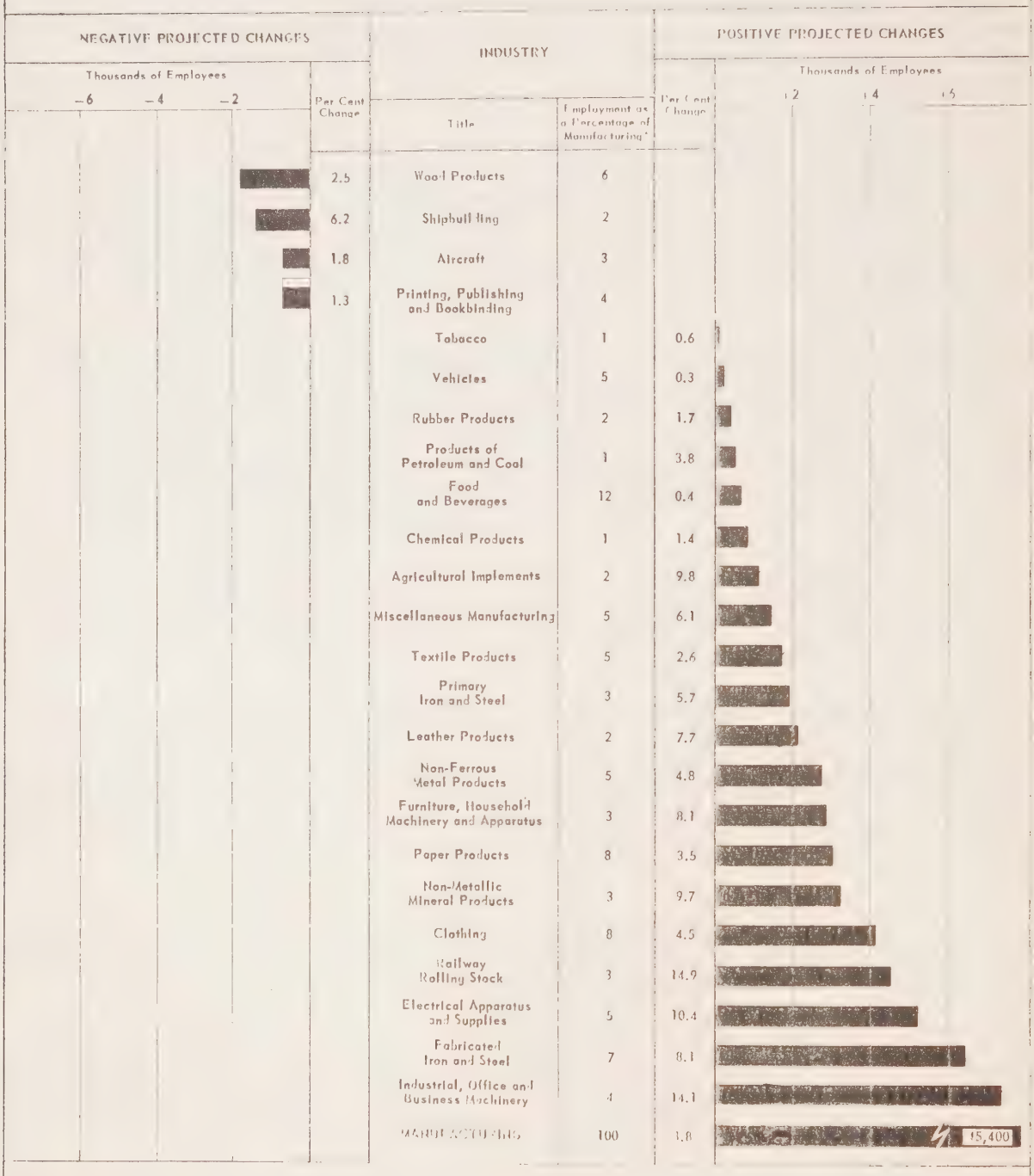
The employment indices projected to July, 1956 for all of the other manufacturing industries indicate year-to-year gains. The largest percentage increase is given for railway rolling stock, with a projected year-to-year increase of nearly 15 per cent. This industry, which at October 1, 1955, employed approximately 3 per cent of all workers in the manufacturing industries will employ some 4,500 additional workers next July than it did a year earlier if the projected index is achieved.

The largest absolute projected gain in employment at July 1, 1956, compared with the same date last year is that for the industrial, office and business machinery industry with a projected increase of over 7,000 workers.

Should all of the projected year-to-year gains take place, employment in these industries will be higher by some 50,000 workers in July 1956 than in July 1955. Should the projected declines in the four industries previously mentioned also occur, the net year-to-year increase in manufacturing employment at July, 1956 will be approximately 45,000 workers.

EMPLOYMENT OUTLOOK IN MANUFACTURING INDUSTRIES

July 1, 1955 to July 1, 1956



*Employment in each industry as a percentage of total manufacturing employment October 1, 1955

The general buoyance in the forecasts made by firms and establishments in the manufacturing industries is also found in most of the selected non-manufacturing industries.

Logging

Employment in the British Columbia Logging industry registered a year-to-year increase of 2.0 per cent at October 1, 1955. The current projections for April and July indicate that the margin of year-to-year gain will narrow to 1.3 per cent in April of this year, and that employment in July of this year may be a shade lower than in July of last year.

The employment level in the logging industry for the other provinces was up 2.6 per cent at October 1, 1955, compared with October, 1954. This part of the logging industry shows a projected year-to-year employment gain of 25 per cent in April of this year.

Mining

Employment in all branches of mining was approximately 3.5 per cent higher last October than on the same date in 1954. The projected indices for the three mining industries suggest that employers in the Non-Metallic Mining industry expect their employment this April will be more than 20 per cent above the low levels on that date in 1955. A year-to-year gain of 6.8 per cent is indicated for Metal Mining as of April 1 of this year, while the aggregate forecasts of employers in the mining of fuels group show a decline of 1.5 per cent in April, 1956 from the level of April, 1955.

Electric Power

Projections based on the aggregated forecasts of employers in the electric power industry show year-to-year increases of 6.3 and 1.0 per cent at April 1 and July 1, respectively. These projected gains may be compared with the year-to-year increase of 1.3 per cent that was attained at October 1, 1955.

Communications

After having achieved a year-to-year gain of over 5 per cent in employment last October, the projected indices for the communications industry suggest increases of 9.0 and 6.5 at April 1 and July 1, 1956 over the same dates in the previous year.

Department Stores

The projected employment of department stores for April 1, 1956 indicates that the year-to-year gain of over 5 per cent that was attained last October will be continued at April 1, 1956, but will decline to give a gain of 2.2 per cent at July over the actual employment in this industry on July 1, 1955.

EMPLOYMENT TRENDS IN MANUFACTURING

1955 - 1956

(Seasonally Adjusted)

Industry Group	Actual Employment			Projected(2) Employment		Percentage Change	
	Apr. 1 1955	July 1 1955	Oct. 1 1955	Apr. 1 1956	July 1 1956	Apr. 1/55 to Apr. 1/56	July 1/55 to July 1/56
Total Manufacturing	107.9	110.2	111.7	113.6	114.4	+ 5.3	+ 3.8(3)
Basic Materials....	106.2	108.6	110.8	112.1	112.1	+ 5.6	+ 3.2
Consumer Finished Goods Industries.	107.2	109.4	111.0	111.3	112.5	+ 3.8	+ 2.8
Producer Finished Goods Industries.	114.9	115.3	118.3	123.2	123.9	+ 7.2	+ 7.5

Source: Actual employment Labour and Prices Division D.B.S.; adjusted for strikes and seasonal variations Economics and Research Branch, Department of Labour. Projections E.F.S.

EMPLOYMENT TRENDS IN SELECTED NON-MANUFACTURING INDUSTRIES 1955 - 1956

(Not Seasonally Adjusted)

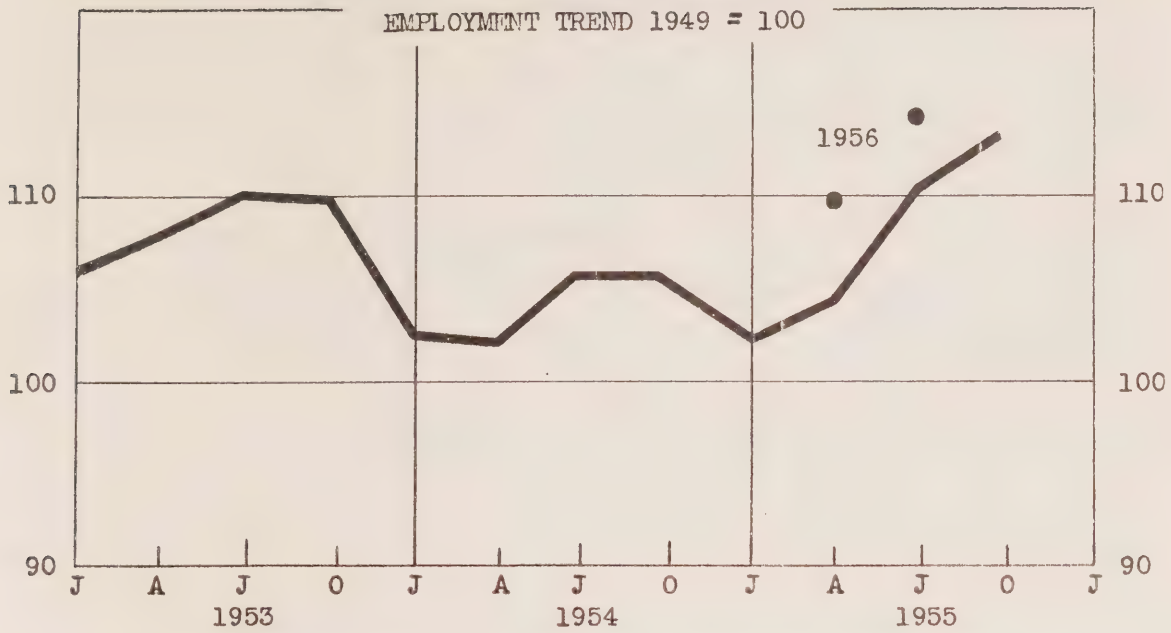
Industry Group	Actual Employment			Projected Employment		Percentage Change	
	April 1 1955	July 1 1955	Oct. 1 1955	April 1 1956	July 1 1956	Apr.1/55 to Apr.1/56	July 1/55 to July 1/56
Logging							
British Columbia..	83.8	111.0	109.7	84.9	110.7	+ 1.3	- 0.3
Manitoba & East(a)	35.8	82.9	145.4	44.8	83.3	+25.1	+ 0.5
Mining.....	110.0	115.5	116.5	116.4	118.8	+ 5.8	+ 2.9
Electric Power.....	116.3	126.2	124.3	123.6	127.5	+ 6.3	+ 1.0
Communications.....	126.1	131.8	134.6	137.4	140.4	+ 9.0	+ 6.5
Department Stores...	96.9	102.0	106.8	101.8	104.2	+ 5.1	+ 2.2

Source: (a) Based on actual employment sample establishments; other actual employment indexes Labour and Prices Division, D.B.S. Projections E.F.S.

MANUFACTURING INDUSTRIES

- PRODUCER FINISHED GOODS INDUSTRIES
- CONSUMER FINISHED GOODS INDUSTRIES
- BASIC MATERIALS INDUSTRIES

BASIC MATERIALS INDUSTRIES

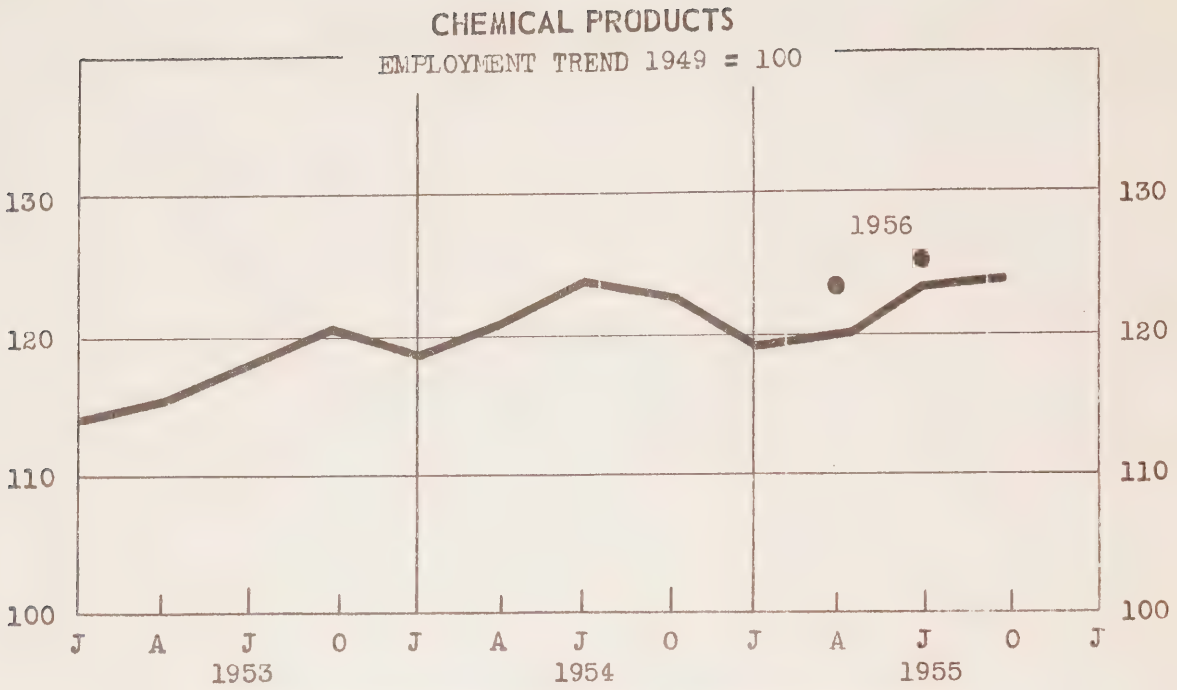


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT(4)

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	113.3	+ 7.1	-
Projected to Apr. 1/56 (3 mo. fcst's)	109.9	+ 5.6	- 3.0
Projected to July 1/56 (6 mo. fcst's)	114.5	+ 3.2	+ 1.1

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.45	2.02	1.92	3.00
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	3/4	11/16



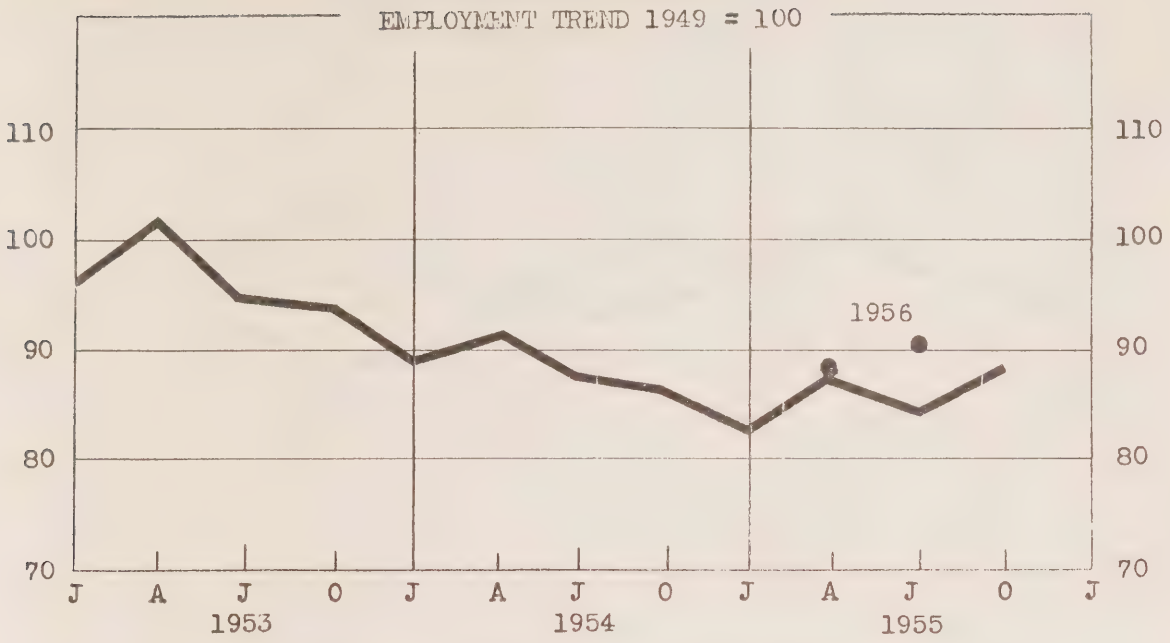
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	124.0	+ 1.6	-
Projected to Apr. 1/56 (3 mo. fcst's)	123.4	+ 2.8	- 0.5
Projected to July 1/56 (6 mo. fcst's)	125.1	+ 1.4(3)	+ 0.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.44	1.60	1.29	1.77
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	11/16	4/4	12/16

LEATHER PRODUCTS



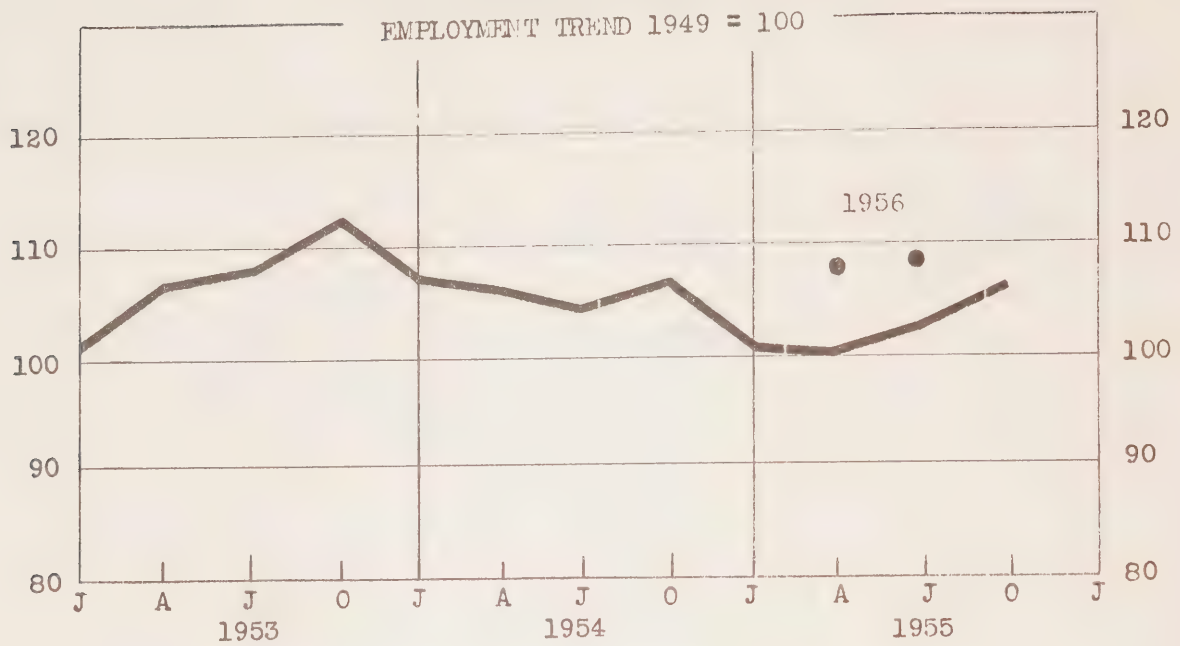
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	88.6	+ 2.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	88.4	+ 1.0	- 0.2
Projected to July 1/56 (6 mo. fcst's)	90.5	+ 7.7	+ 2.1

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Jan. 1,1953 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Jan.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	4.83	4.66	4.40	6.42
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	0/3	5/11	2/3	7/12

MISCELLANEOUS MANUFACTURING



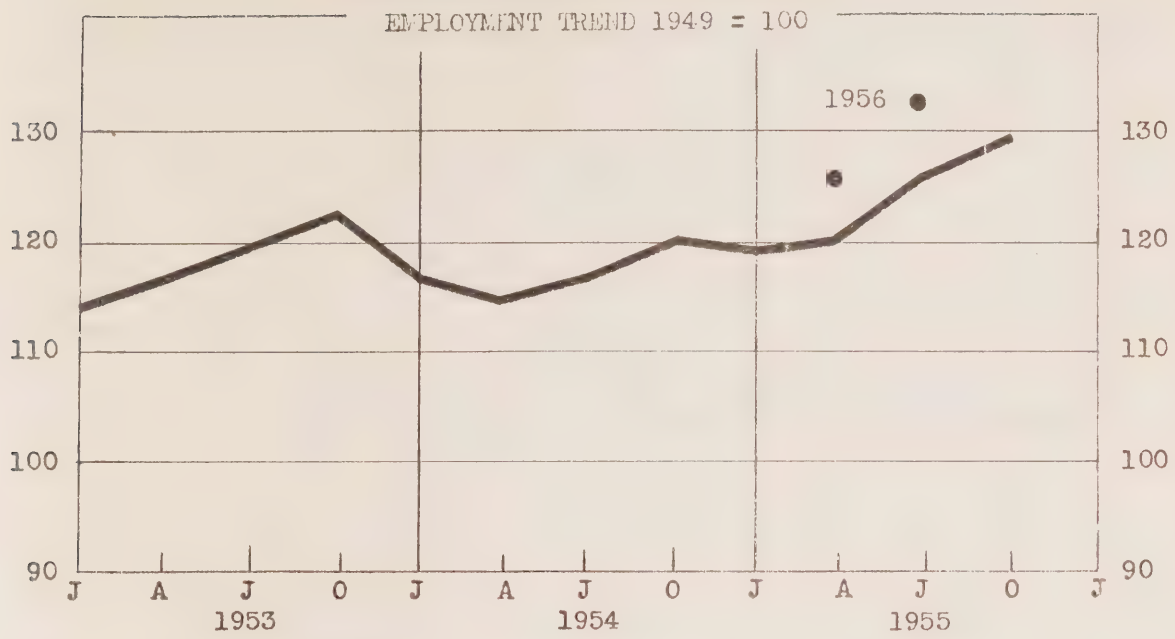
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	106.3	- 0.2	-
Projected to Apr. 1/56 (3 mo. fcst's)	108.0	+ 8.0	+ 1.6
Projected to July 1/56 (6 mo. fcst's)	108.5	+ 6.1	+ 2.1

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Apr. 1,1953 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Apr.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	4.85	4.78	6.37	6.20
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	1/3	4/11	1/3	4/11

NON-FERROUS METAL PRODUCTS



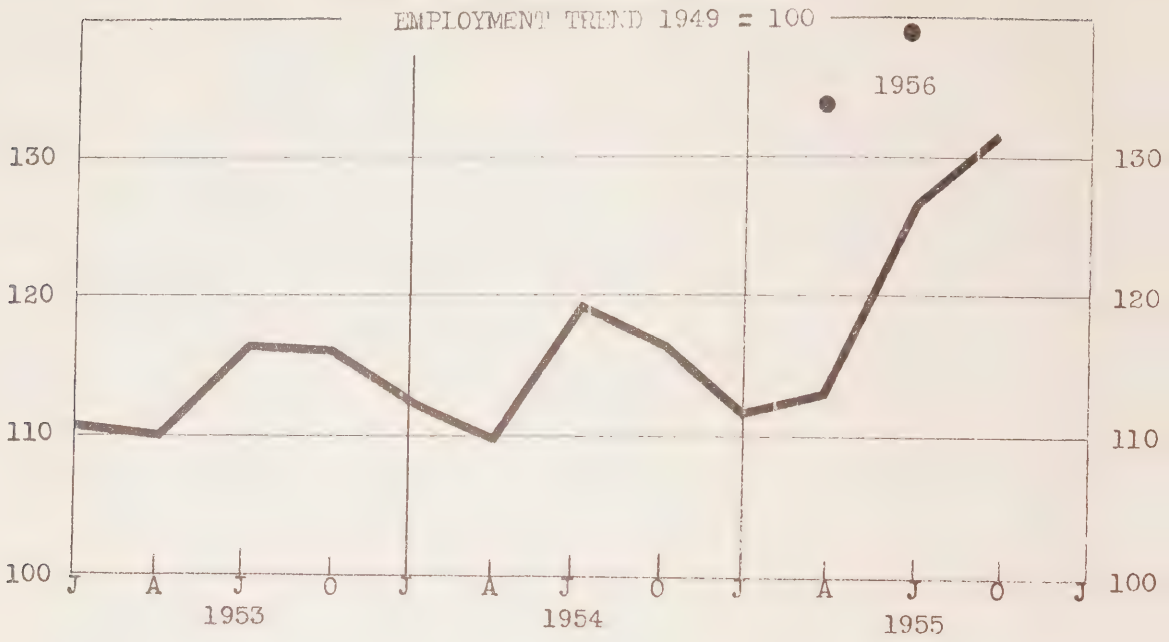
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	129.6	+ 7.8	-
Projected to Apr. 1/56 (3 mo. fcst's)	126.0	+ 4.9	- 2.8
Projected to July 1/56 (6 mo. fcst's)	132.3	+ 4.8	+ 2.1

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.77	2.82	2.28	4.01
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/4	10/16	3/4	9/16

NON-METALLIC MINERAL PRODUCTS



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Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	131.9	+13.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	133.9	+18.8	+ 1.5
Projected to July 1/56 (6 mo. fcst's)	139.0	+ 9.7	+ 5.4

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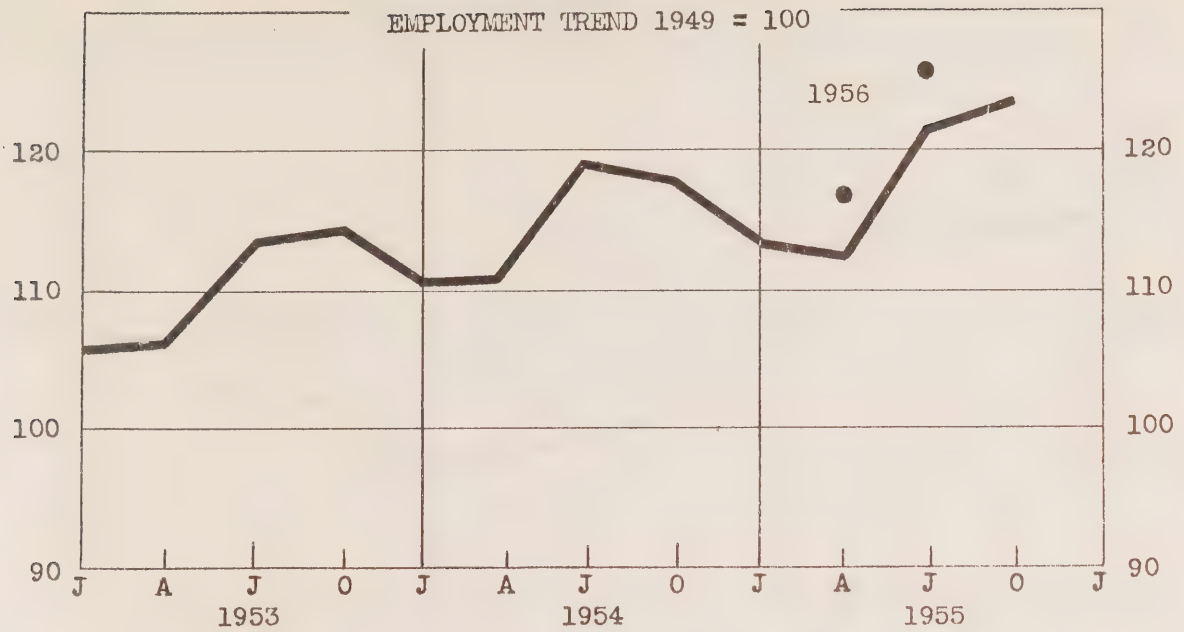
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1, 1952 to Oct.1, 1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	4.47	4.83	2.96	4.06
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	13/16	3/4	11/16

PAPER PRODUCTS



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Projected to Apr. 1/56 (3 mo. fcst's)	116.8	+ 4.3	- 5.4
Projected to July 1/56 (6 mo. fcst's)	125.5	+ 3.5	+ 1.6

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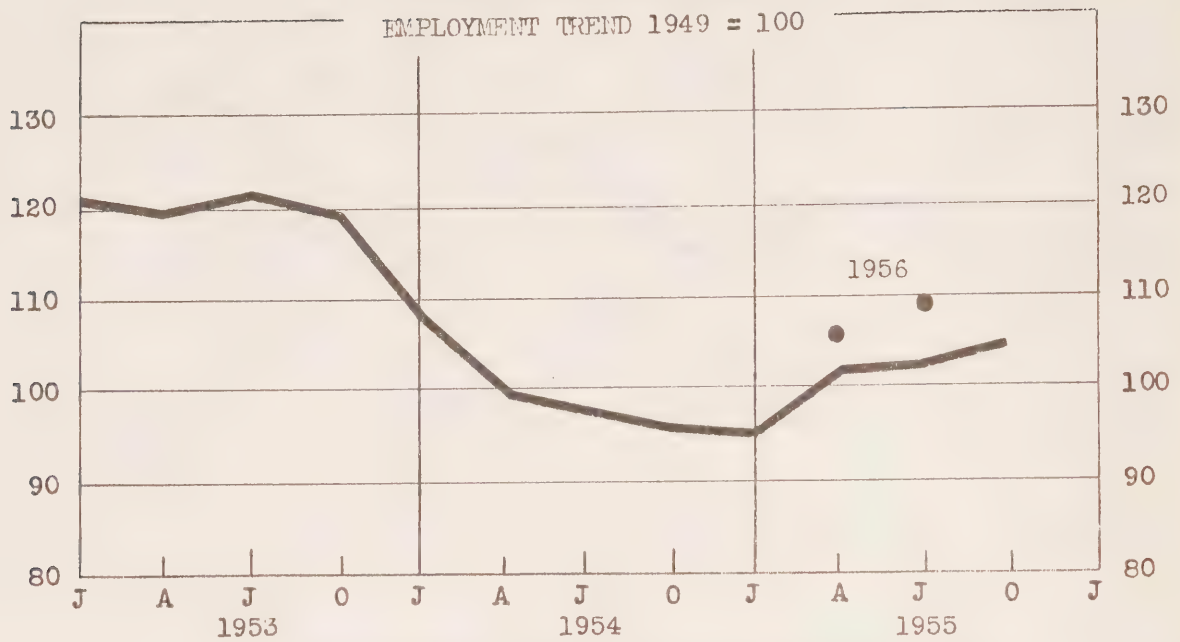
Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955
Average percentage difference between actual and forecast employment indexes	.86	2.24	2.11	2.22
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	3/4	14/16

PRIMARY IRON AND STEEL



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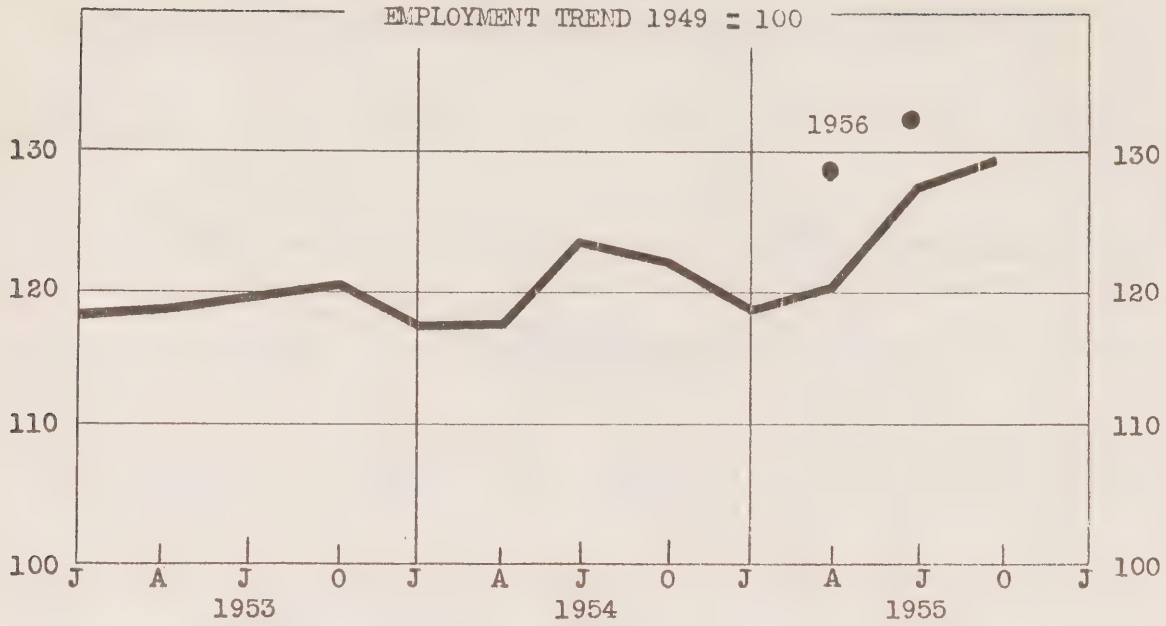
PRODUCTS OF PETROLEUM AND COAL



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Projected to July 1/56 (6 mo. fcst's)	132.6	+ 3.8	+ 2.3

SUMMARY ACCURACY RECORD

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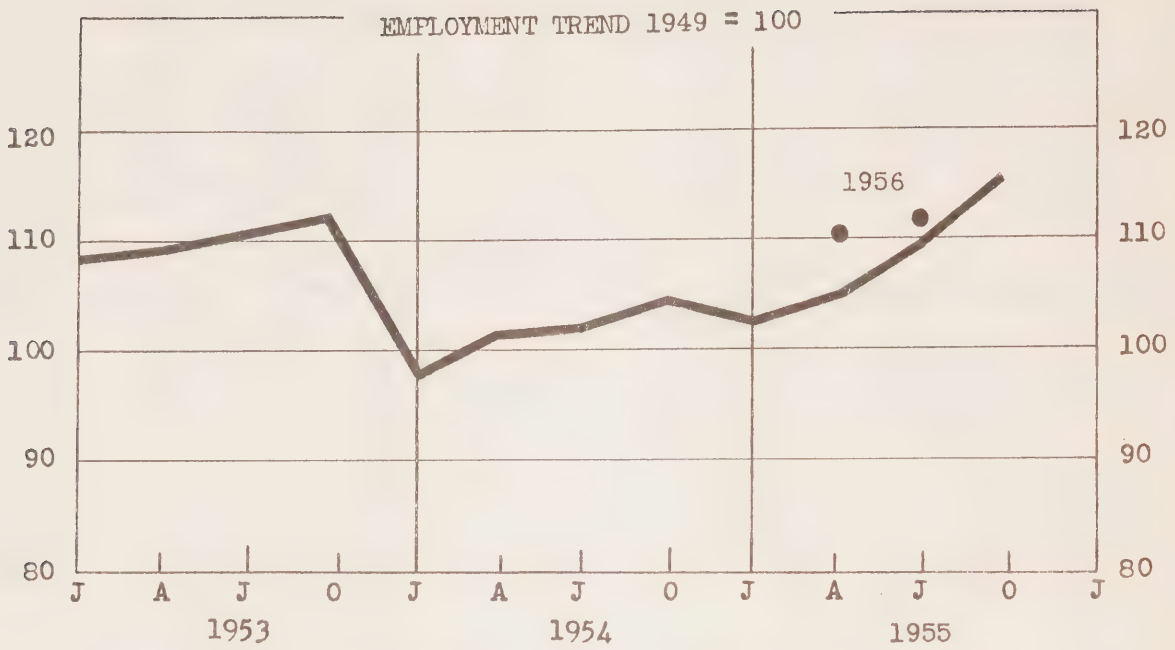
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.42	4.25	3.51	4.74
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	12/16	4/4	12/16

RUBBER PRODUCTS



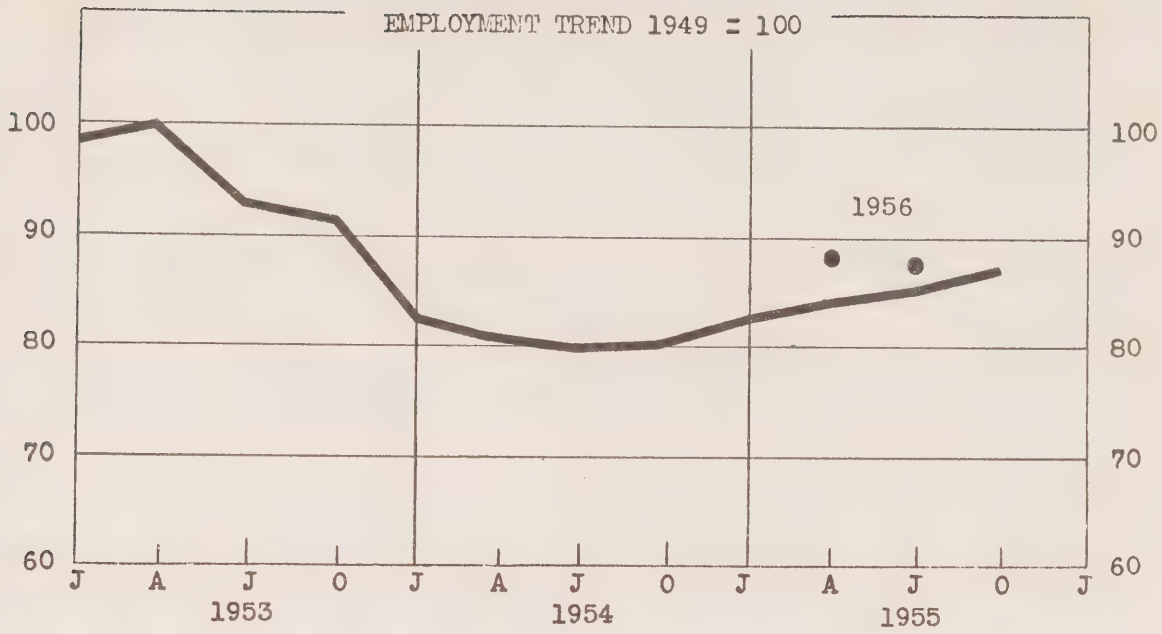
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	115.3	+10.8	-
Projected to Apr. 1/56 (3 mo. fcst's)	110.2	+ 5.7	- 4.4
Projected to July 1/56 (6 mo. fcst's)	111.6	+ 1.7	- 3.2

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.73	3.54	3.92	4.34
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	12/16	4/4	13/16

TEXTILE PRODUCTS
(Except Clothing)



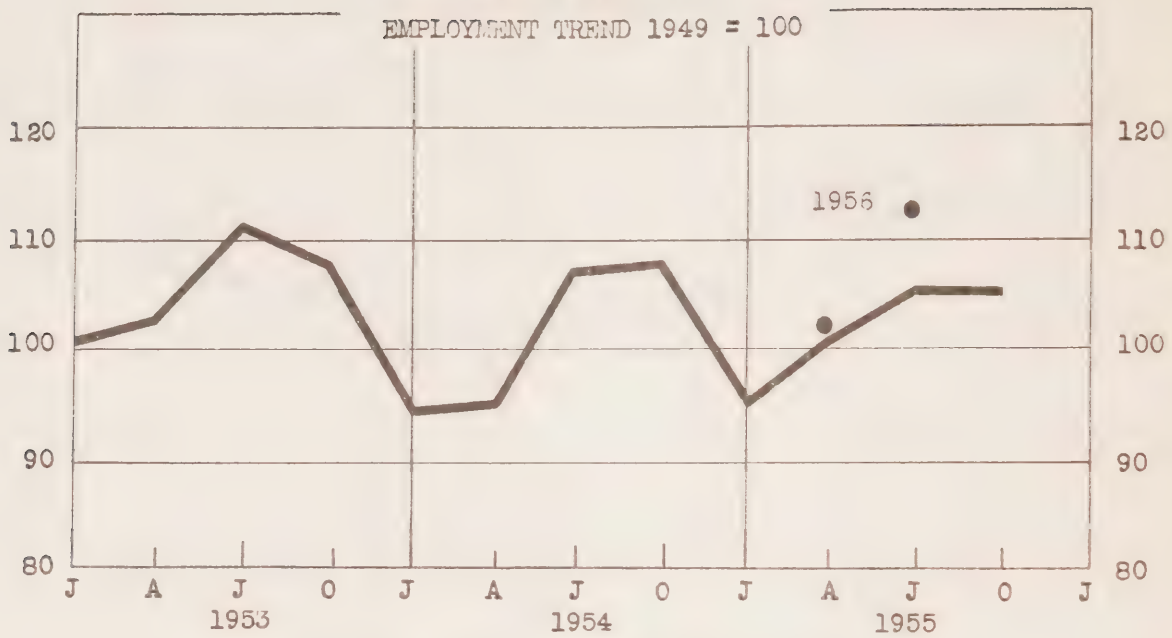
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	87.4	+ 9.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	88.2	+ 5.0	+ 0.9
Projected to July 1/56 (6 mo. fcst's)	87.8	+ 2.6	+ 0.5

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1, 1952 to Oct.1, 1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	4.14	4.56	6.06	7.36
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/4	12/16	2/4	9/16

WOOD PRODUCTS



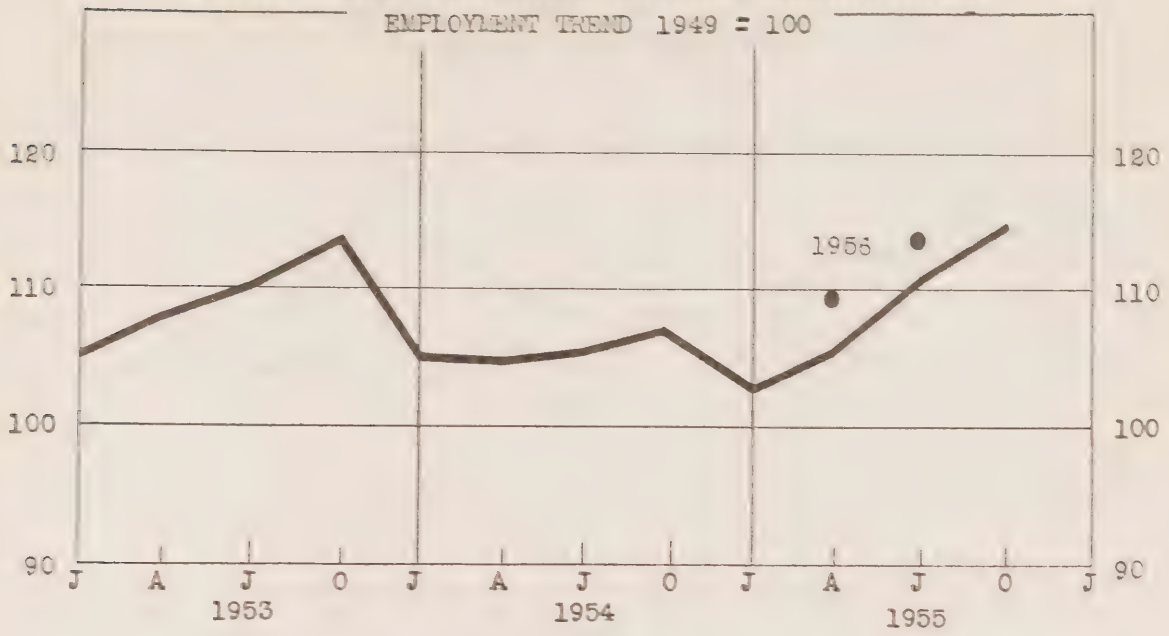
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	115.4	+ 7.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	102.0	+ 1.3	-11.6
Projected to July 1/56 (6 mo. fcst's)	112.6	- 2.5	- 2.4

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.91	4.61	2.44	5.75
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	2/4	11/16

CONSUMER FINISHED GOODS INDUSTRIES



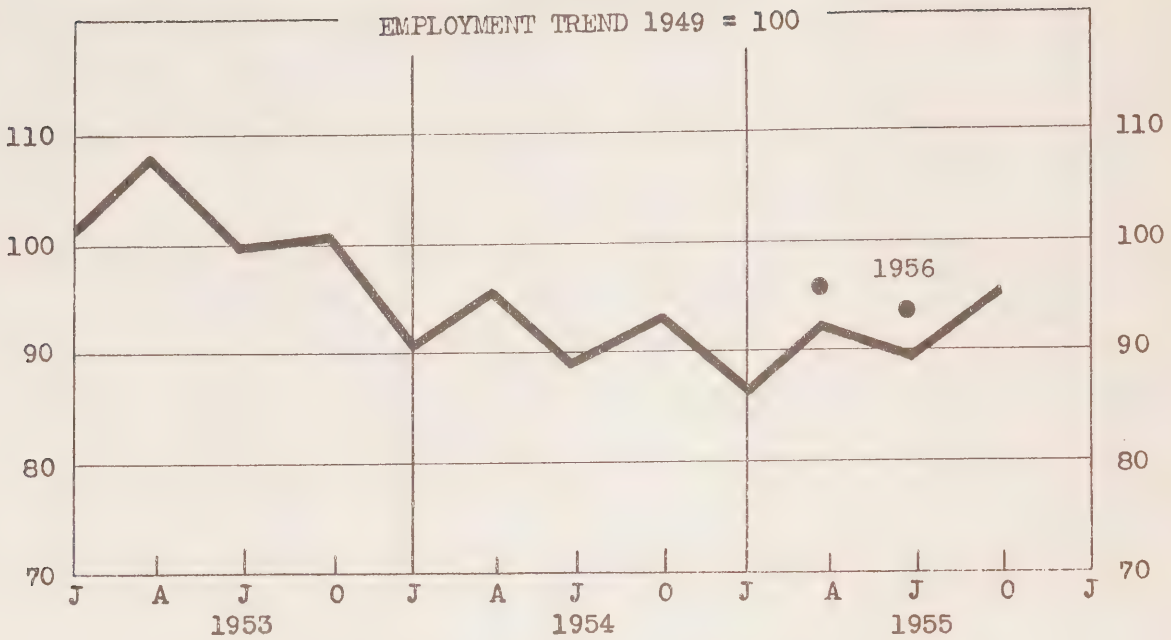
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	114.4	+ 7.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	109.0	+ 3.9	- 4.7
Projected to July 1/56 (6 mo. fcst's)	113.6	+ 2.8	- 0.7

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Apr. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates July 1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.41	1.96	3.05	3.25
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/4	15/16	3/4	12/16

CLOTHING



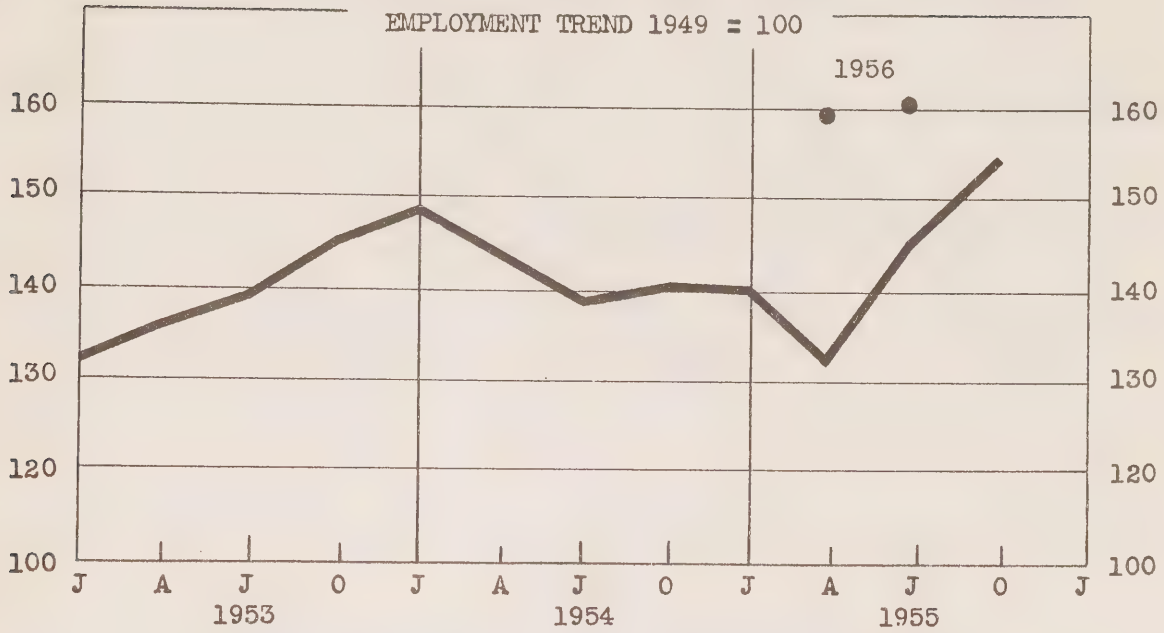
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	95.3	+ 2.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	95.9	+ 3.9	+ 0.6
Projected to July 1/56 (6 mo. fcst's)	93.6	+ 4.5	- 1.8

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1, 1952 to Oct.1, 1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.74	4.93	5.66	6.70
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	8/16	2/4	10/16

ELECTRICAL APPARATUS AND SUPPLIES
(Except Heavy Electrical Machinery)



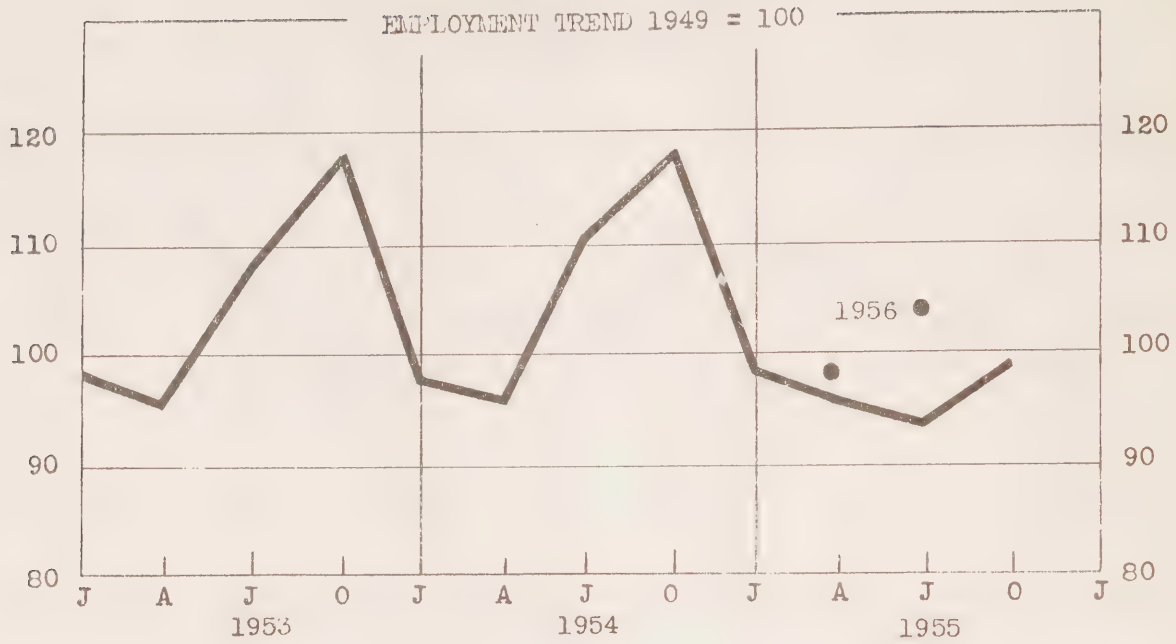
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	154.7	+ 9.9	-
Projected to Apr. 1/56 (3 mo. fcst's)	159.0	+11.9	+ 2.8
Projected to July 1/56 (6 mo. fcst's)	160.7	+10.4	+ 3.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Jan. 1,1953 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Apr.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.45	3.67	4.59	4.91
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/3	9/12	2/3	8/11

FOOD AND BEVERAGES



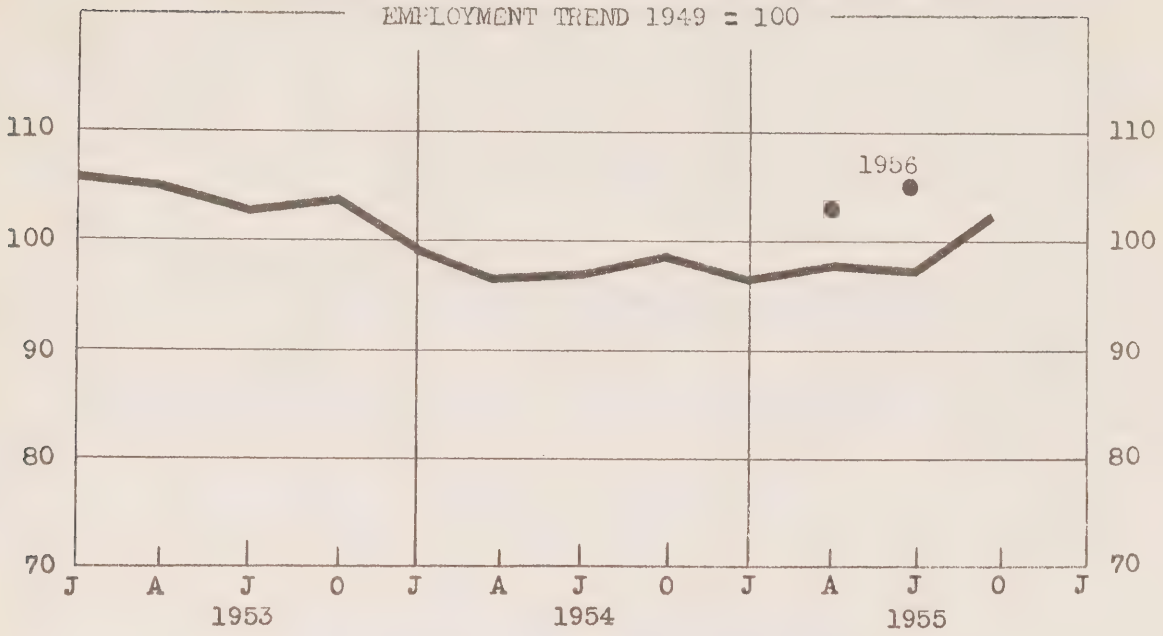
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	119.3	+ 0.8	-
Projected to Apr. 1/56 (3 mo. fcst's)	98.5	+ 3.5	-17.4
Projected to July 1/56 (6 mo. fcst's)	114.2	+ 0.4	- 4.3

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.83	1.87	1.95	1.80
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	4/4	16/16

FURNITURE, HOUSEHOLD MACHINERY AND APPARATUS



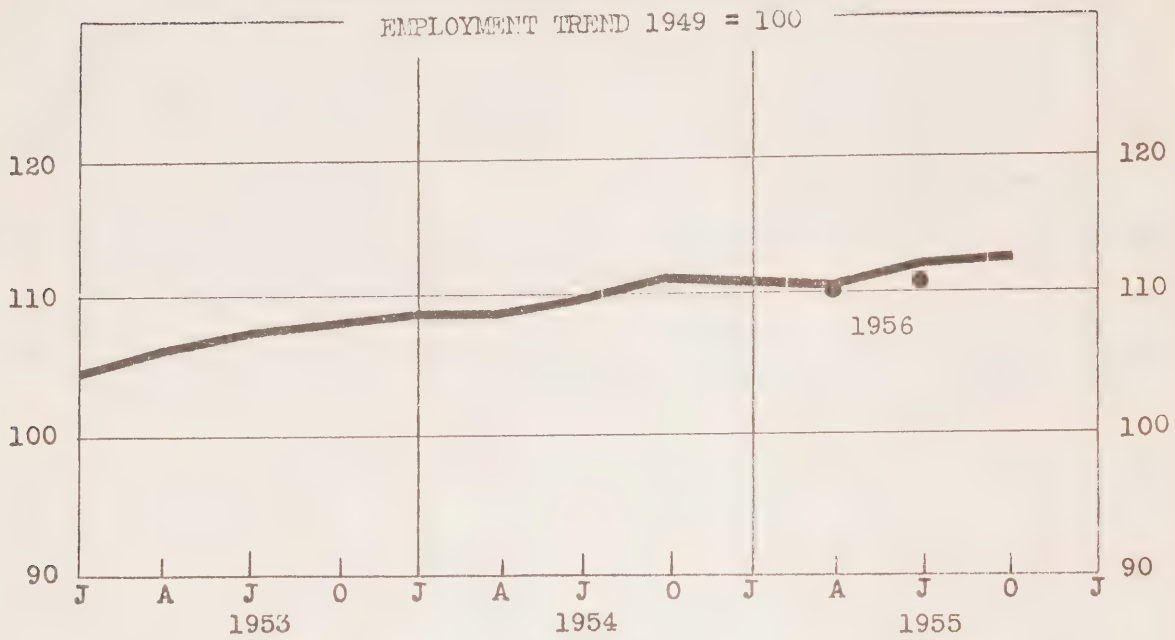
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	102.9	+ 4.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	103.0	+ 6.0	+ 0.1
Projected to July 1/56 (6 mo. fcst's)	105.0	+ 8.1	+ 2.0

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Jan. 1,1953 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Apr.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.04	2.65	2.71	3.30
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/3	10/12	2/3	7/11

PRINTING, PUBLISHING AND BOOKBINDING



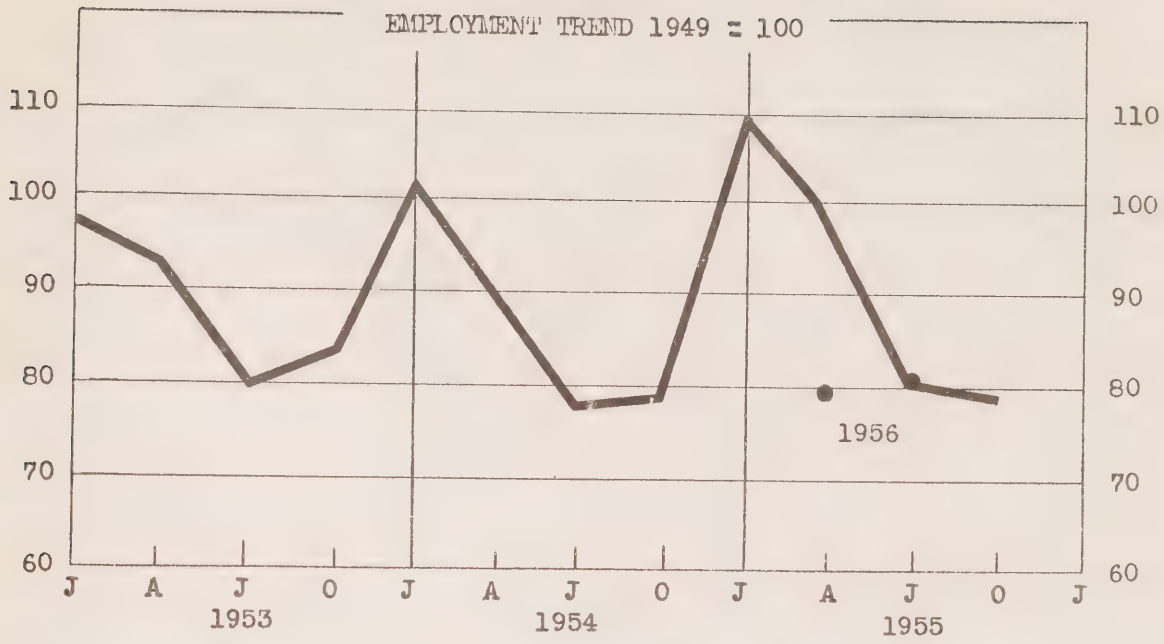
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	112.5	+ 1.3	-
Projected Apr. 1/56 (3 mo. fcst's)	110.3	- 0.5	- 2.0
Projected to July 1/56 (6 mo. fcst's)	110.8	- 1.3	- 1.5

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Apr.1,1953 to Oct.1,1955	For July 1 Target Dates 1953-1955	All Target Dates Jan.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.93	1.75	1.82	1.95
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/3	6/11	2/3	6/12

TOBACCO

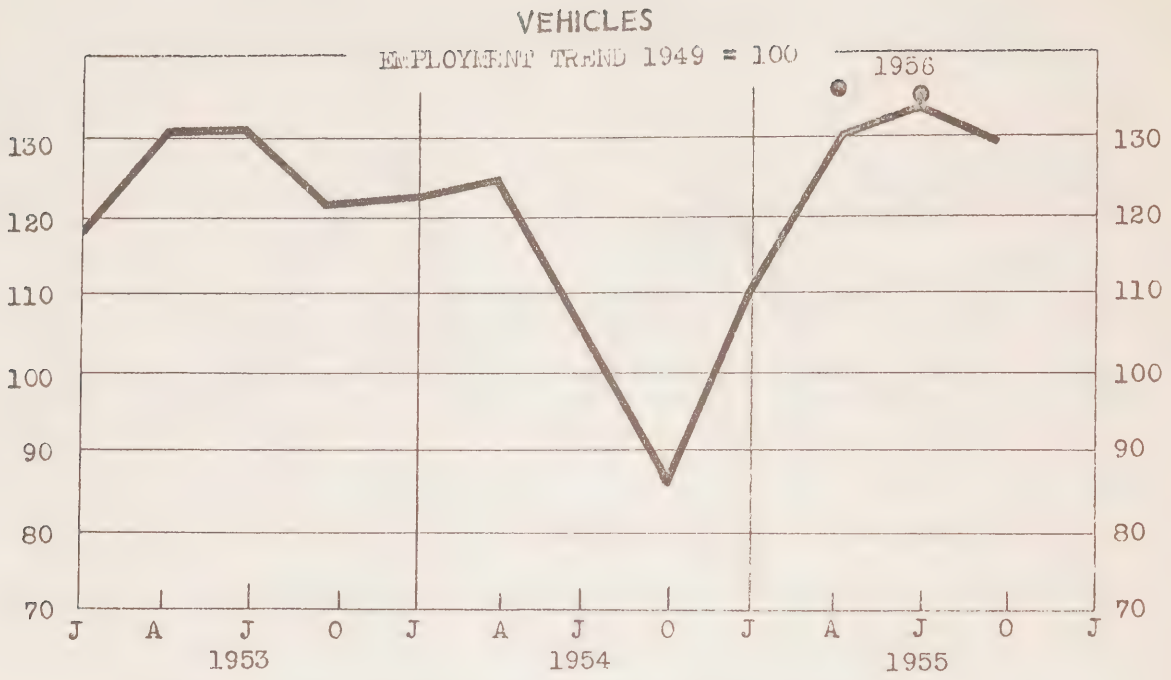


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT (5)

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	78.7	+ 0.6	-
Projected to Apr. 1/56 (3 mo. fcst's)	79.6	-19.6	+ 1.1
Projected to July 1/56 (6 mo. fcst's)	80.8	+ 0.6	+ 2.7

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Apr. 1,1953 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Jan.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	12.19	9.49	2.23	6.11
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/3	10/11	2/3	10/12



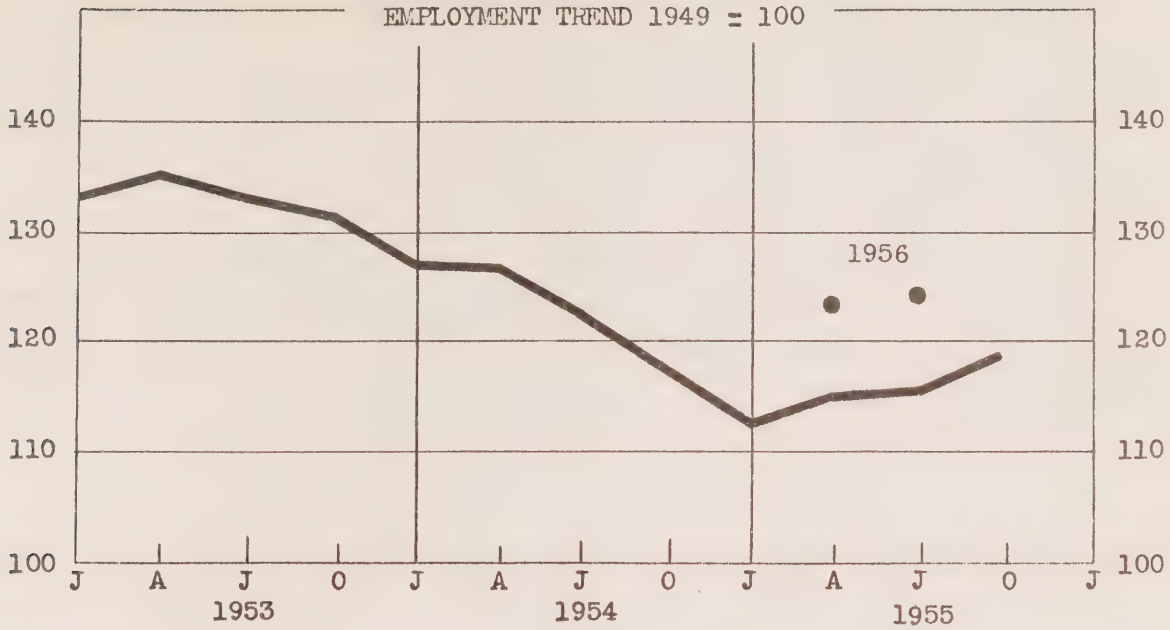
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	129.4	+50.8	-
Projected to Apr. 1/56 (3 mo. fcst's)	135.5	+ 4.2	+ 4.7
Projected to July 1/56 (6 mo. fcst's)	134.4	+ 0.3	+ 3.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.71	5.15	10.65	8.96
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	14/16	3/4	14/16

PRODUCER FINISHED GOODS INDUSTRIES



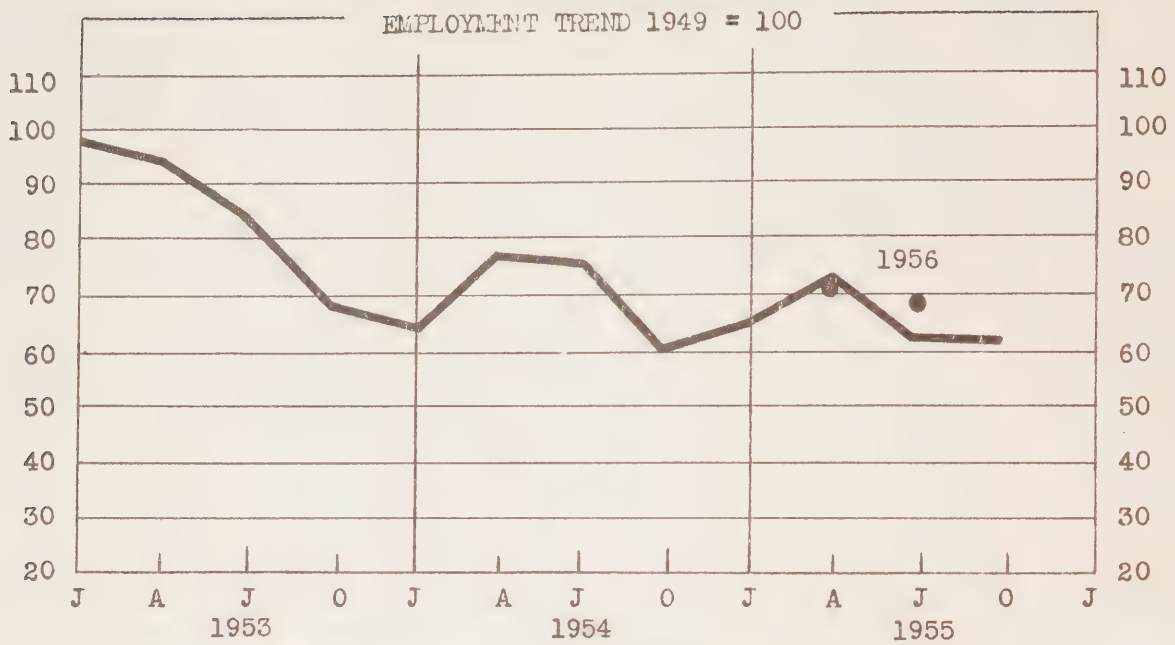
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	119.7	+ 1.6	-
Projected to Apr. 1/56 (3 mo. fcst's)	123.4	+ 7.2	+ 3.1
Projected to July 1/56 (6 mo. fcst's)	124.4	+ 7.4	+ 3.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.55	1.58	3.81	2.72
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	15/16	4/4	14/16

AGRICULTURAL IMPLEMENTS



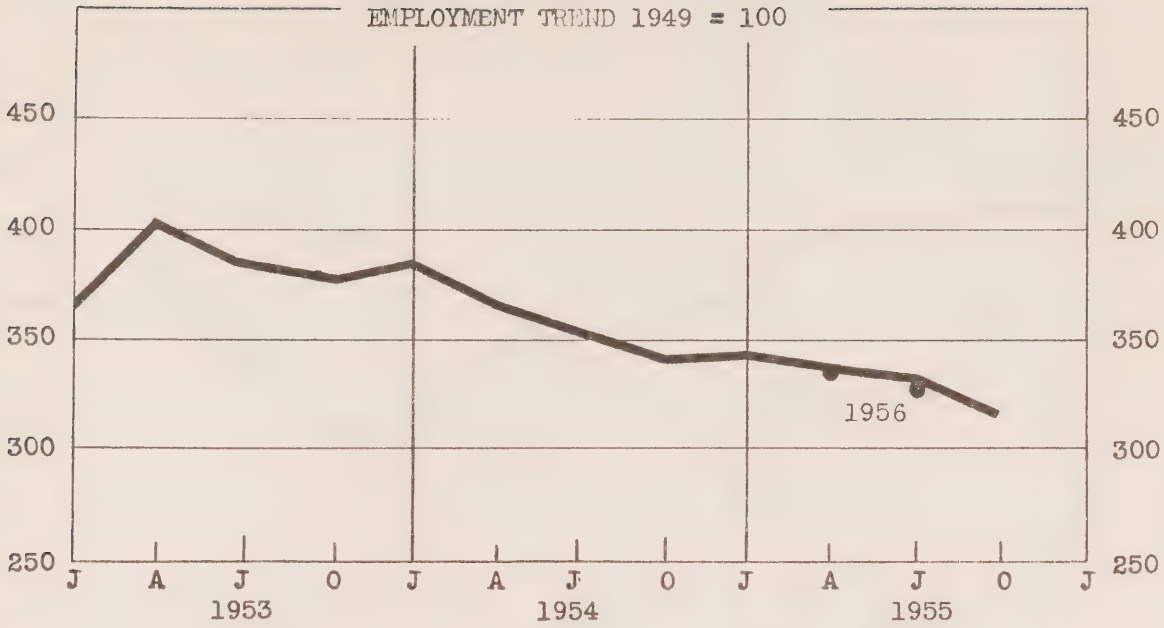
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	61.9	+ 4.6	-
Projected to Apr. 1/56 (3 mo. fcst's)	73.2	- 0.4	+18.3
Projected to July 1/56 (6 mo. fcst's)	68.4	+ 9.8	+10.5

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	10.59	13.51	12.83	13.52
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/4	13/16	3/4	11/16

AIRCRAFT



INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

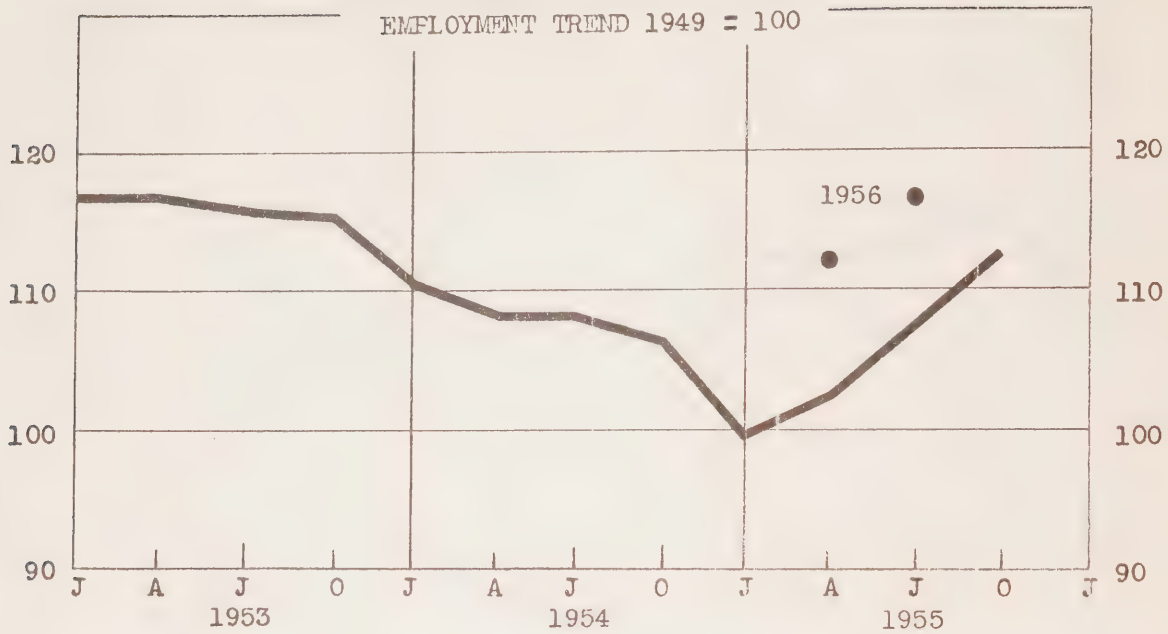
Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	334.1	- 1.5	-
Projected to Apr. 1/56 (3 mo. fcst's)	335.4	0.0	+ 0.4
Projected to July 1/56 (6 mo. fcst's)	326.1	- 1.8	- 2.4

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates July 1,1952 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Oct.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.20	5.69	3.86	5.98
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/3	12/14	3/3	13/13

FABRICATED IRON AND STEEL

EMPLOYMENT TREND 1949 = 100



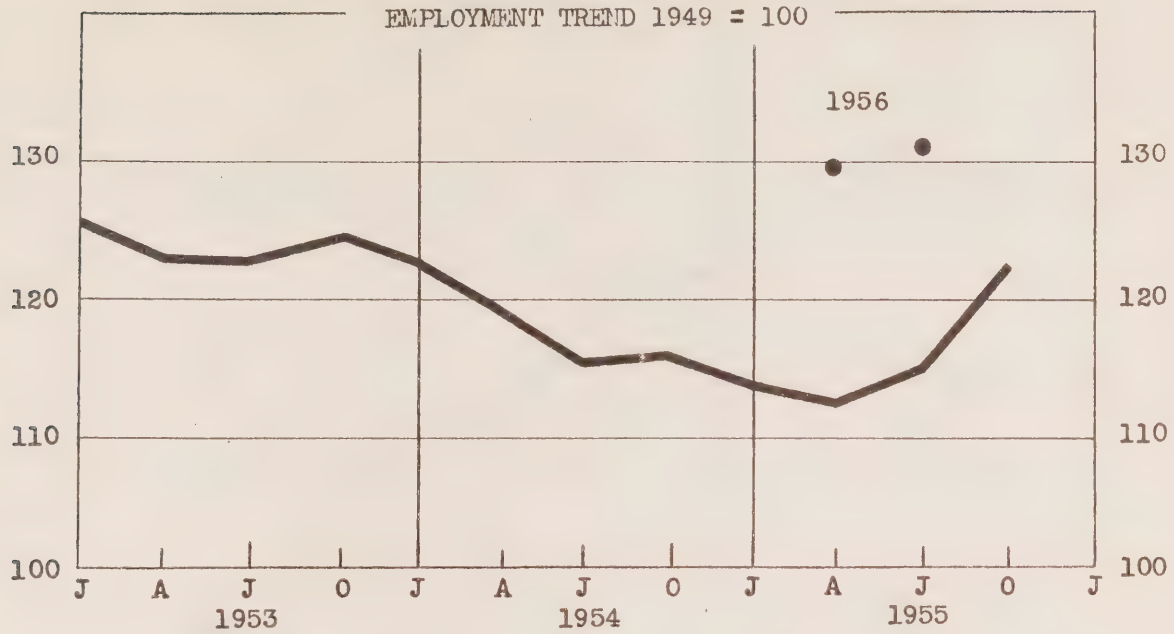
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	112.6	+ 5.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	112.1	+ 9.7	- 0.4
Projected to July 1/56 (6 mo. fcst's)	116.3	+ 8.1	+ 3.3

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	4.53	2.96	5.02	3.54
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	9/16	2/4	11/16

INDUSTRIAL, OFFICE AND BUSINESS MACHINERY



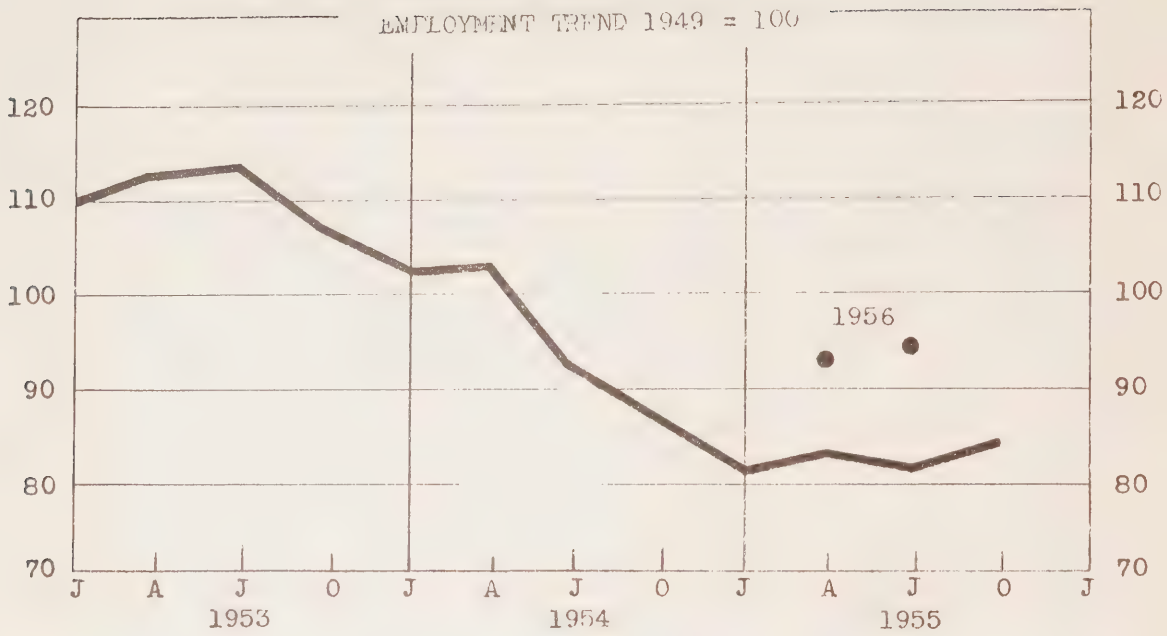
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	122.4	+ 5.5	-
Projected to Apr. 1/56 (3 mo. fcst's)	129.5	+15.3	+ 5.8
Projected to July 1/56 (6 mo. fcst's)	131.0	+14.1	+ 7.0

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.47	2.67	5.25	3.77
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	1/4	8/16	1/4	9/16

RAILWAY ROLLING STOCK



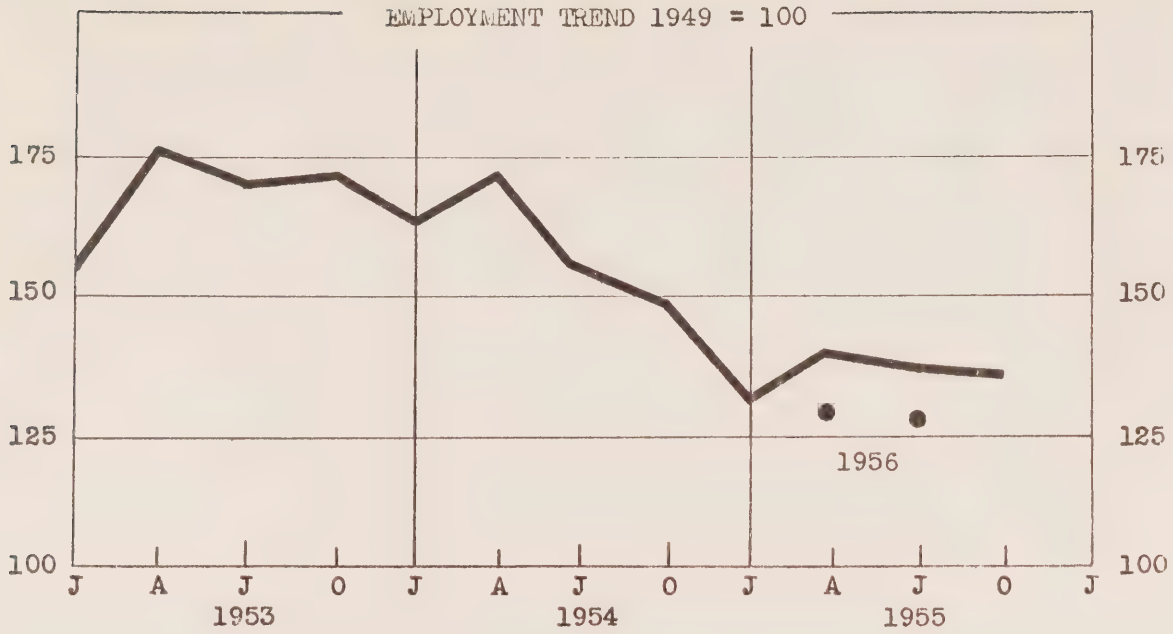
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	84.2	- 2.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	93.0	+12.3	+10.4
Projected to July 1/56 (6 mo. fcst's)	94.1	+14.9	+11.7

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates July 1,1952 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Oct.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	6.59	7.11	7.60	9.55
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/3	8/14	2/3	5/13

SHIPBUILDING AND REPAIRING



INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	135.6	- 9.2	-
Projected to Apr. 1/56 (3 mo. fcst's)	129.5	- 8.5	- 4.5
Projected to July 1/56 (6 mo. fcst's)	128.4	- 6.2	- 5.3

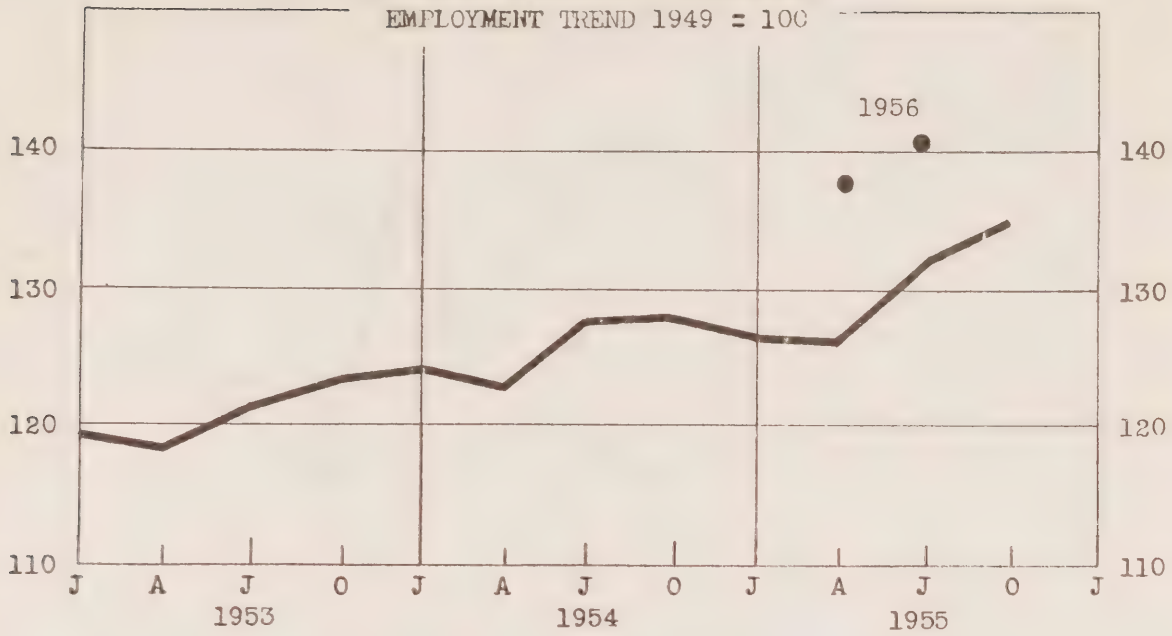
SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates July 1,1952 to Oct. 1,1955	For July 1 Target Dates 1953-1955	All Target Dates Oct.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	7.38	5.08	7.64	6.87
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/3	10/14	3/3	10/13

SELECTED

NON - MANUFACTURING INDUSTRIES

COMMUNICATIONS – TELEPHONES



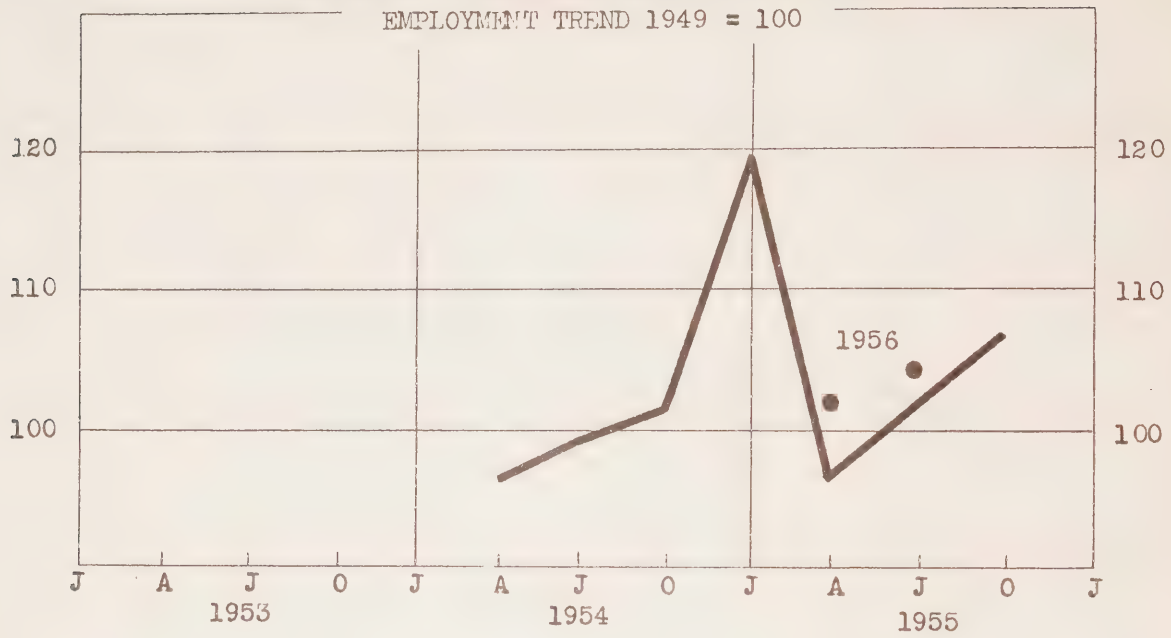
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	134.6	+ 5.4	-
Projected to Apr. 1/56 (3 mo. fcst's)	137.4	+ 9.0	+ 2.1
Projected to July 1/56 (6 mo. fcst's)	140.4	+ 6.5	+ 4.3

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.28	1.34	.32	1.47
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	13/16	4/4	13/16

DEPARTMENT STORES AND MAIL ORDER HOUSES

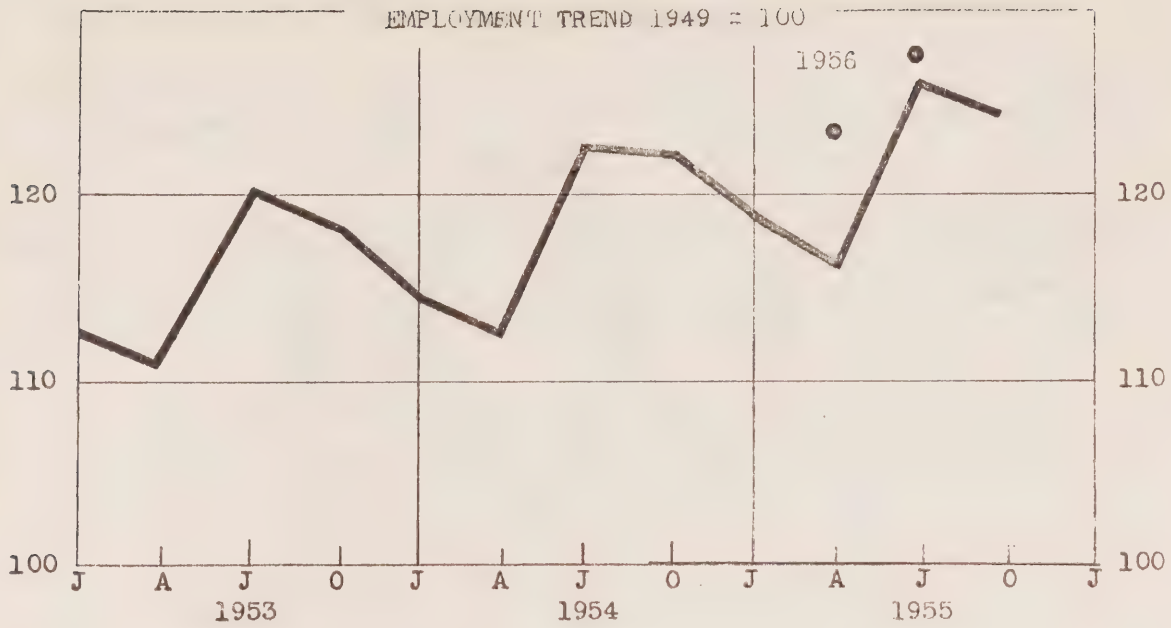


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT (7)

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	106.8	+ 5.2	-
Projected to Apr. 1/56 (3 mo. fcst's)	101.8	+ 5.1	- 4.7
Projected to July 1/56 (6 mo. fcst's)	104.2	+ 2.2	- 2.4

Note: Actual employment figures are not available prior to March 1, 1954.

ELECTRIC POWER

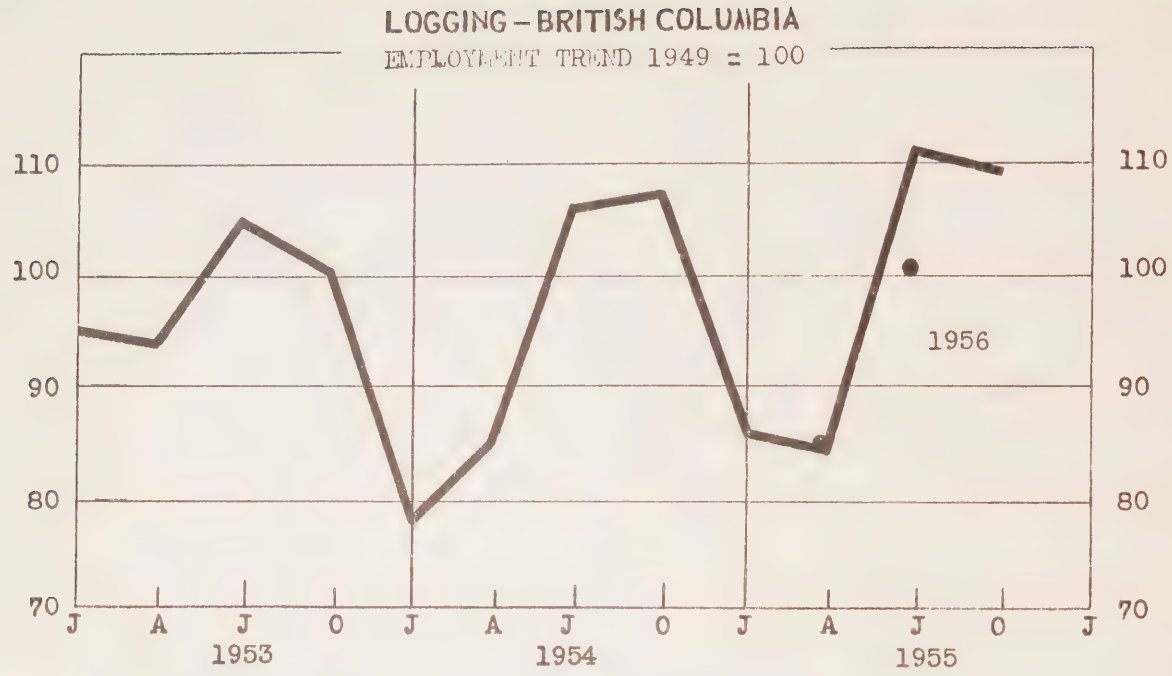


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	124.3	+ 1.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	123.6	+ 6.3	- 0.6
Projected to July 1/56 (6 mo. fcst's)	127.5	+ 1.0	+ 2.6

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	1.80	2.18	2.77	2.63
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	16/16	4/4	16/16

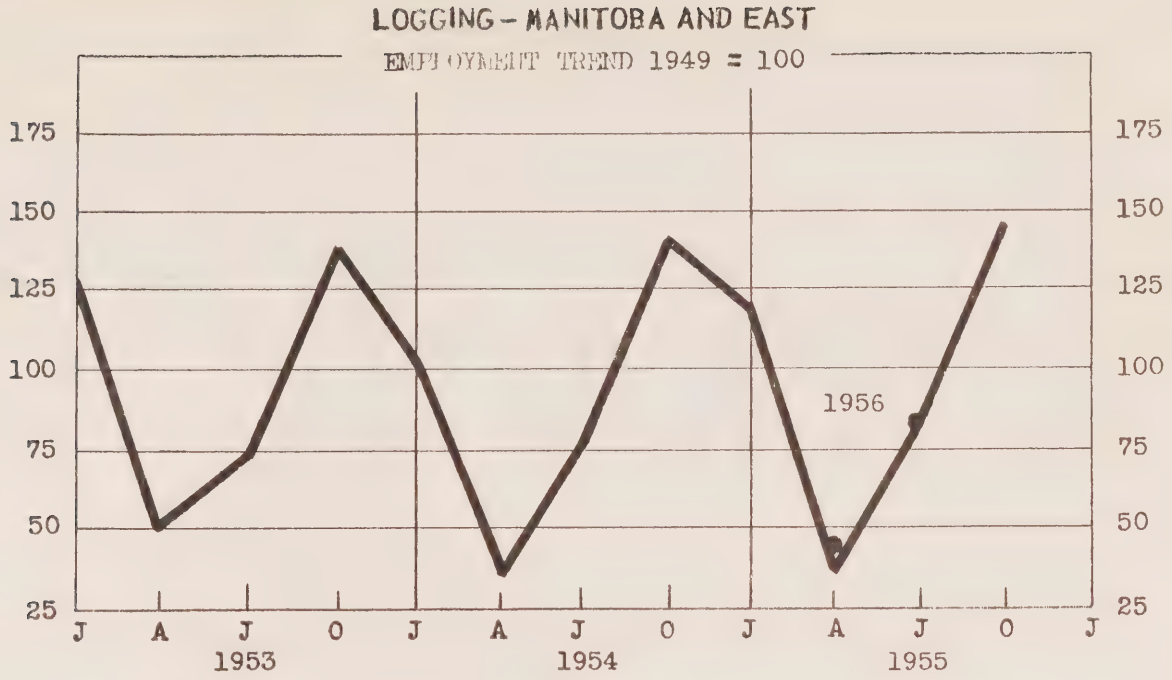


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	109.7	+ 2.0	-
Projected to Apr. 1/56 (3 mo. fcst's)	84.9	+ 1.3	-22.6
Projected to July 1/56 (6 mo. fcst's)	110.7	- 0.3	+ 0.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	16.70	10.16	11.11	14.10
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	13/16	2/4	10/16



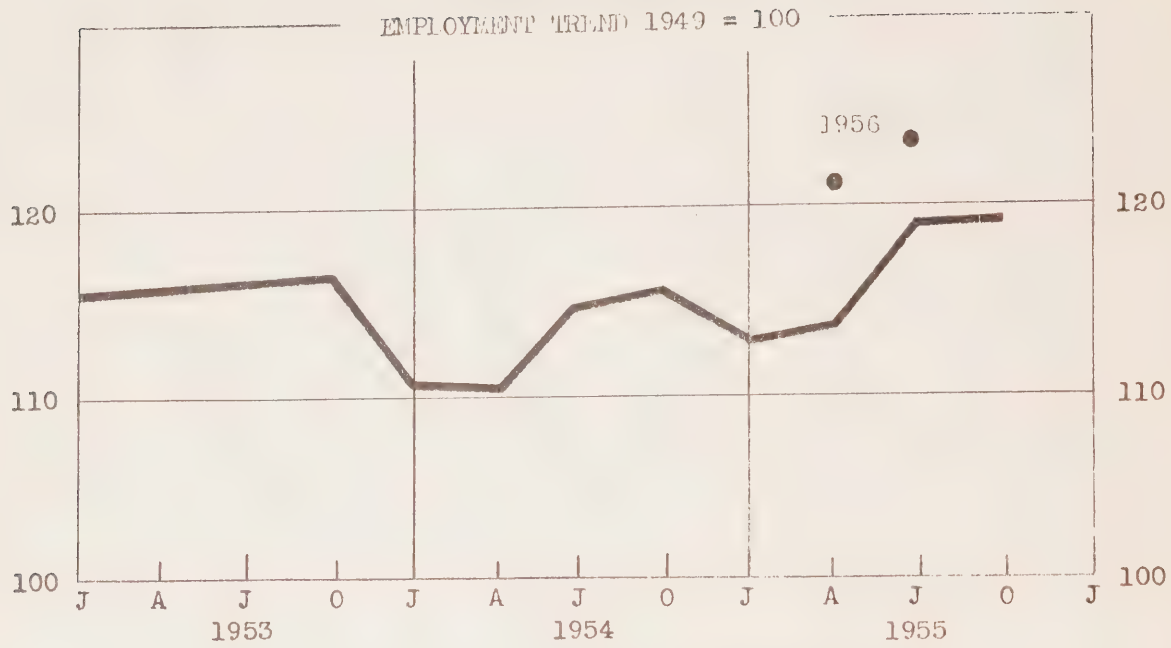
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT (6)

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	145.4	+ 2.6	-
Projected to Apr. 1/56 (3 mo. fcst's)	44.8	+25.1	-69.2
Projected to July 1/56 (6 mo. fcst's)	83.3	+ 0.5	-42.7

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1953-1955	All Target Dates Jan.1,1953 to Oct.1,1955	For July 1 Target Dates 1953-1955	All Target Dates Apr.1,1953 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	6.57	5.49	8.98	7.78
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/3	12/12	3/3	11/11

METAL MINING



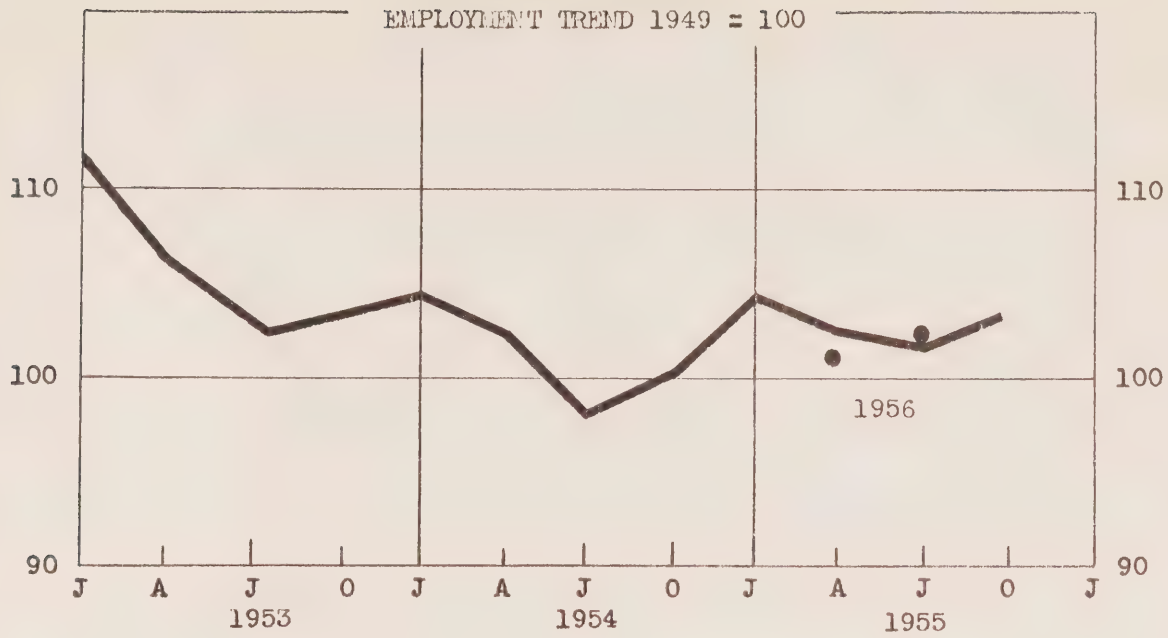
INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	119.4	+ 3.5	-
Projected to Apr. 1/56 (3 mo. fcst's)	121.1	+ 6.8	+ 1.4
Projected to July 1/56 (6 mo. fcst's)	123.3	+ 3.4	+ 3.3

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	2.72	2.97	2.54	3.24
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	4/4	12/16	3/4	12/16

MINING OF FUELS

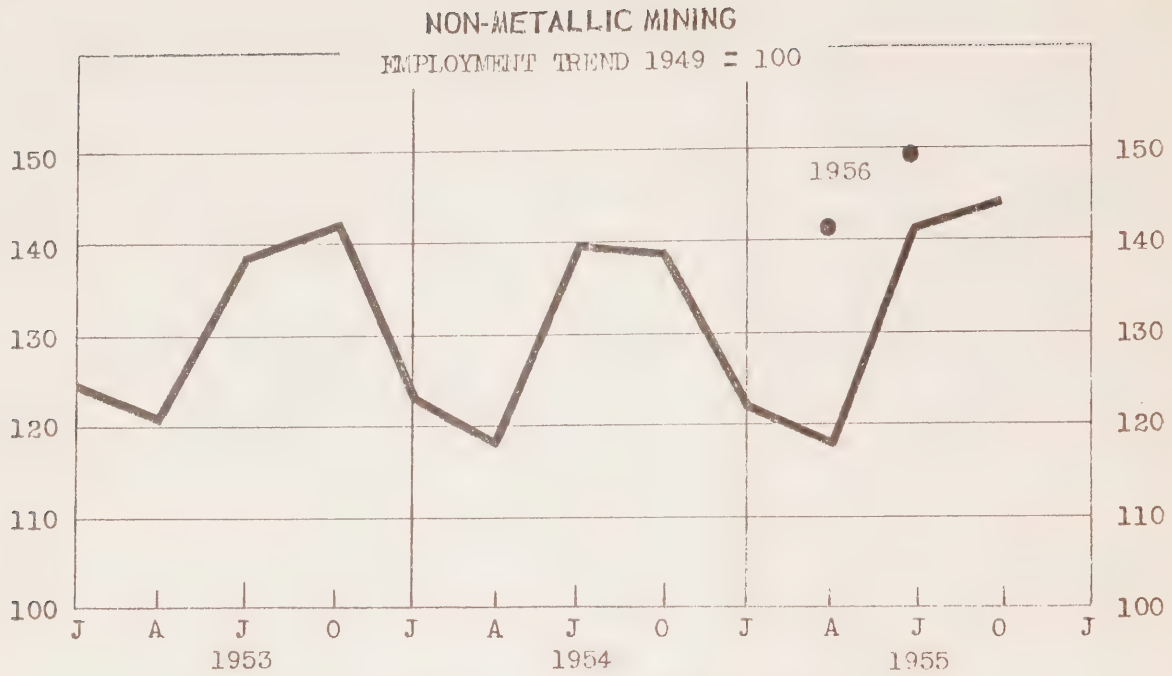


INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	103.4	+ 3.3	-
Projected to Apr. 1/56 (3 mo. fcst's)	101.2	- 1.5	- 2.1
Projected to July 1/56 (6 mo. fcst's)	102.5	+ 0.9	- 0.9

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	3.41	4.27	6.20	5.51
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	2/4	7/16	1/4	5/15



INDEX AND PERCENTAGE CHANGE OF FORECAST EMPLOYMENT

Latest Actual and Target Dates	Employment Index	Percentage Change	
		Year to Year	From Oct. 1 1955
Latest Actual, Oct. 1, 1955	144.4	+ 4.0	-
Projected to Apr. 1/56 (3 mo. fcst's)	141.8	+20.6	- 1.8
Projected to July 1/56 (6 mo. fcst's)	149.0	+ 5.2	+ 3.2

SUMMARY ACCURACY RECORD

Accuracy Measure	3 Month Forecasts		6 Month Forecasts	
	For April 1 Target Dates 1952-1955	All Target Dates Jan. 1,1952 to Oct. 1,1955	For July 1 Target Dates 1952-1955	All Target Dates Jan.1,1952 to Oct.1,1955
Average percentage difference between actual and forecast employment indexes	10.67	6.09	3.70	5.87
Ratio of the correct predictions of direction of change (from projection date to target date) to all predictions over the same interval	3/4	15/16	4/4	15/16

CONCEPTS AND METHODS

(a) PROJECTION PROCEDURES

The forecast employment indexes published in this quarterly E.F.S. report are, with one exception projections of the monthly employment indexes published by the D.B.S. in a report entitled "Employment and Payrolls" (which will be abbreviated to E. & P.)*. The projections, which in all cases are derived by the use of one of three procedures to be described below, are based solely upon the employment forecasts of a sample of approximately 800 establishments drawn from the universe of all establishments with 15 or more employees which report to the Employment Section, Labour and Prices Division, D.B.S.

Four times each year the sample establishments provide data with respect to their own actual employment in the previous three months and forecasts of what they believe the employment of their establishment will be on two target dates. These target dates are approximately three and six months in the future when the forecasts are made by the establishments. For example, each sample establishment is asked to make a return by December 15 of each year which includes the actual number of employees (wage and salaried employees) who worked any part of the pay periods ending nearest September 30, October 31, and November 30 of the current year, and forecasts of their employment on March 31 (the three month forecast), and on June 30 (the six month forecast). The figures requested on the actual employment of the establishments are the same as those requested by E. & P. It is assumed in the survey, as in E. & P., that the employment of the establishments on the first of each month is the same as the employment reported for the pay periods ending nearest the last day in the previous month.

The establishments are classified into approximately sixty industry (i.e. rubber products) or sub-industry (i.e. woollen and cotton goods of the textile industry) groups. The actual and forecast employment data of the establishments in an industry or sub-industry group are aggregated, and the percentage changes from the aggregate sample actual employment on the projection date to the aggregate sample forecast employment at the 3 or 6 month target date are computed. These percentage changes derived from the aggregated actual and forecast employment of the sample establishments, are applied to the actual employment, on the projection date, of all the establishments in the industry or sub-industry group (E. & P.). This provides a projection of the total employment of the sample and non-sample establishments to the target dates. The total employment projection of the industry or sub-industry group (E. & P.), as previously described, is put into index number form by dividing the total projected employment by the base period employment on the projection date.

The three projection procedures which are used may be described briefly as follows:

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* This reference is to the Employment and Payrolls monthly bulletins of the Employment Section, Labour and Prices Division, D.B.S. Not all of the data used in the compilation of the E.F.S. report are published in the Employment and Payrolls bulletin; some are contained in special tabulations made available by the Employment Section each month.

(a) The Standard Projection Procedure: The aggregate sample forecast percentage change for a particular industry or sub-industry group is computed from a projection date which coincides with the latest E. & P. data consistently available at the time each Employment Forecast Survey report is produced, to the relevant three and six month target dates. The projection and target dates for 3 and 6 month forecasts, when the standard procedure is used, are given in the table below:

Aggregate Sample Forecast Percentage Change Computed for a Particular Industry Using Standard Projection Procedure

E.F.S. Report (Quarter)	From actual employment on these projection dates	To forecast employment on these 3 month target dates*	To forecast employment on these 6 month target dates*
First	October 1	April 1	July 1
Second	January 1	July 1	October 1
Third	April 1	October 1	January 1
Fourth	July 1	January 1	April 1

* The use of the words "3 and 6 month target dates" refers to the fact that establishments made their forecasts approximately 3 and 6 months before the target dates. The E. & P. indexes are projected 6 and 9 months, respectively.

The appropriate aggregate sample forecast percentage changes (3 month and six month) are applied to the actual total employment of the industry or sub-industry group (E. & P.) on the same projection date, to give forecasts of total employment of the industry or sub-industry group (E. & P.) on the target date. The industry or sub-industry group employment forecasts of the industry or sub-industry group (E. & P.) are put into index number form by dividing them by the base period employment, on the projection date.

(b) Year-to-Year Projection Procedure: In certain industry and sub-industry groups, particularly those marked by substantial seasonal fluctuations, the aggregate sample forecast percentage change is computed from the aggregate sample actual employment on the target date in the previous year to the aggregate sample forecast employment for the same target date approximately three to six months in the future. This aggregate sample industry or sub-industry group percentage change is then applied to the total actual employment of the industry or sub-industry group (E. & P.) on the same target date in the previous year, to make a year-to-year projection of the employment of the sample and non-sample establishments in the industry or sub-industry group. The forecast is put into index number terms by dividing the total industry or sub-industry group forecast employment by the base period employment of the establishments reporting to E. & P. on the projection date (which in this case is the same target date in the previous year).

(c) Cumulative Projection Procedure: In arriving at forecasts of the manufacturing industry group as a whole, the five economic groupings differentiated within manufacturing, and many of the individual industry groups, it is necessary to aggregate or cumulate the employment forecasts of two or more industry or sub-industry groups. In such cases cumulative forecasts are produced by adding together, for each of the industry or sub-industry groups to be cumulated, the total employment of the sample and non-sample establishments which has been projected to the target date. The total projected employment of the composite group is then divided by the total base period employment of each of the industry or sub-industry groups on the projection date, as in the "Standard Projection Procedure". This gives a composite forecast employment index in which the aggregate sample forecast percentage change in each industry or sub-industry group is weighted by the number of employees in a particular industry or sub-industry group (E. & P.) in the base period, relative to the total number of employees of the composite industry or industry group in the base period.

The table on the following pages serves to indicate both the industry and/or sub-industry groups which are cumulated to provide composite indices for the current E.F.S. Report, and the projection procedures used to derive individual industry or sub-industry group forecasts.

In the forecasts for Logging (Manitoba and East), the forecasting procedure differs from those previously mentioned. In this industry the aggregate actual employment of the E.F.S. sample establishments is unrepresentative of the total employment of the industry (E. & P.). While the aggregate sample forecast percentage changes in these industries are reasonably adequate in the prediction of the future aggregate sample employment, it has been found unrealistic to apply these aggregate sample forecast percentage changes to the industry as a whole for specific target dates.

On the assumption that forecasts of the aggregate employment of the E.F.S. sample establishments in this industry is of some general interest, indexes of the aggregate actual and forecast employment of the sample establishments have been computed. It is important to note that in this industry forecasts are not projections of the industry employment provided in E. & P. Because the forecasts for Logging (Manitoba and East) are not involved in any composite indexes they can stand independently of the forecasts derived by the usual procedures.

Groups		Projection Procedure
Economic	Industry and Sub-Industry	
MANUFACTURING		Cumulative
Producer Finished Goods		Cumulative
	Shipbuilding & Repairing	Standard
	Aircraft	"
	Railway Rolling Stock	"
	Industrial Office & Business Machinery	Cumulative
	Machinery, n.e.c.	Standard
	Office & Business Machinery	"
	Internal Combustion Engines	"
	Heavy Electrical Machinery	"
	Agricultural Implements	"
	Fabricated Iron & Steel	"
Consumer Finished Goods		Cumulative
	Food & Beverages	"
	Meat	Standard
	Fish	Year-to-Year
	Grain Mill	Standard
	Canning & Preserving	Year-to-Year
	Dairies	Standard
	Bakery Products	"
	Other Foods	Year-to-Year
	Beverages	Standard
	Tobacco Products	"
	Clothing	Cumulative
	Knit Goods	Standard
	Other Clothing	"
	Printing & Publishing	"
	Furniture, Household Machinery & Apparatus	Cumulative
	Furniture	Standard
	Heating & Cooking Apparatus	"
	Household Machinery	"

Groups		Projection Procedure
Economic	Industry and Sub-Industry	
MANUFACTURING(Concluded)		Cumulative
Consumer Finished Goods (Concluded)		Cumulative
	Electrical Apparatus & Supplies	Standard
	Vehicles	"
Basic Materials		Cumulative
	Leather Products	Standard
	Rubber Products	"
	Textile Products	Cumulative
	Woollen Goods	Standard
	Cotton Goods	"
	Silk & Artificial Silk	"
	Other Textiles	"
	Paper Products	Cumulative
	Newsprint	Standard
	Livelihood Pulp	"
	Other Pulp & Paper Mills	"
	Paper Boxes & Bags	"
	Other Paper Products	"
	Wood Products	Cumulative
	Sawmills-E. of Rockies	Year-to-Year
	Sawmills-B.C.	Standard
	Miscellaneous Wood Products	"
	Primary Iron & Steel	Standard
	Non-Ferrous Metal Products	"
	Non-Metallic Mineral Products	"
	Chemical Products	"
	Products of Petroleum & Coal	"
	Miscellaneous Manufacturing	"

Groups		Projection Procedure
Economic	Industry and Sub-Industry	
SELECTED NON-MANUFACTURING INDUSTRIES		No forecast
	Logging-M. & E.	Other
	Logging- B.C.	Year-to-Year
	Metal Mining	Cumulative
	Gold Mining	Standard
	Other Metal Mining	"
	Mining of Fuels	Cumulative
	Coal Mining - Maritimes	Standard
	Coal Mining - Prairies & B.C.	"
	Oil & Natural Gas	Year-to-Year
	Non-Metallic Mining	Standard
	Electric Power	"
	Communications	"
	Department Stores & Mail Order Houses	"

Forecast employment indexes for each of the sub-industry groups included in the above table are available on request.

(b) ACCURACY RECORD

Possibly the most important guide to the evaluation of the adequacy of a particular forecast is a statement of the accuracy achieved in the past by similar forecasts. The Summary Accuracy Records, which are published with each forecast employment index, attempt to provide, in a concise and simplified form, some basis for such evaluations of the current forecasts appearing in this report.

The Accuracy Records are based entirely on the forecasts which have been published in the E.F.S. report since 1952, and, with the exception of one industry, the indexes of actual employment taken from E. & P., which have been strike adjusted. The Accuracy Record provided with the forecasts for Logging (Manitoba and East) has been computed from the published forecasts and indexes of the aggregate sample actual employment in this industry, for the reasons mentioned in the discussion of Projection Procedures.

Of the many possible measures of forecast accuracy two have been chosen for inclusion within this report: "the average percentage difference between actual and forecast employment indexes" and the "ratio of the correct predictions of the direction of change (from projection date to target date) to all predictions over the same interval". The Accuracy Record provides measurements of each of these two aspects of forecast accuracy both by the same target date (quarter) and by all target dates (all quarters). The average percentage difference between the actual and forecast employment indices is computed in the following manner:

(1) The difference between a particular forecast employment index for a particular industry or industry group for a given target date, and the actual (realized) employment index for the same industry or group for the same date, is taken as a percentage of the actual (realized) employment index.

(2) The percentage errors computed for the 3 or 6 month forecasts of a particular industry are summed, both by target date (e.g. all the percentage errors of the 3 month forecasts made for a certain month, such as April, 1953 through 1955), and over all target dates (e.g. all the percentage errors of the 3 month forecasts made for all target dates January 1953 through to the most recent target date for which an actual employment index is available). These sums are determined without regard to sign, so that positive percentage errors, where the index has been over-estimated, are not cancelled out by negative percentage errors, where the index has been underestimated.

(3) The summed (without regard to sign) percentage errors are divided by the number of forecast target dates which have been taken into account. This yields the average percentage difference between actual and forecast employment indexes for either the three or six month forecasts for either a particular quarterly target date or over all target dates.

While the average percentage error measure of forecast accuracy indicates the magnitude of the forecast errors it does not indicate the extent to which the index has correctly forecast the direction of change in employment. The second measure, the "Ratio of the correct predictions of the direction of change" provides some information with respect to this latter question. The following method has been used to determine the ratio of forecasts which correctly forecast the direction of change:

(1) The direction of change, both forecast and actual, has been measured, in all instances, from the projection dates given in the Table included in the discussion of the Standard Projection Procedure. No attempt has been made to measure accuracy in the prediction of the direction of change year-to-year, even though year-to-year projection procedures have been used in certain industries. The choice of these uniform projection dates makes it possible to relate the results given in the "Summary Accuracy Record" tables, on the ratio of the correct predictions of the direction of change, to the forecast directions of change given on the right hand sides of the tables entitled "Index and Percentage Change of Forecast Employment" provided for each industry or industry-group forecast included within this Survey report.

(2) The direction of change, whether positive, negative or "no-change", has been determined (measuring from the appropriate projection date) for the actual and forecast employment indexes for a particular target date. Only when the forecast and actual directions of change were the same was the forecast considered correct. It should be mentioned that no attempt has been made to define those changes which were within some defined (relatively narrow) limits as "no-change", although this procedure perhaps would be a more meaningful measure of the accuracy of the forecasts in the prediction of the direction of change than the literal interpretation of "no-change" that has been employed.

Accuracy information computed on the basis of more elaborate accuracy measures is available on request, as well as the ratios of the forecasts which were overly optimistic and overly pessimistic, to all forecasts, for any industry or industry-group. The information included within the "Summary Accuracy Record" is useful in the evaluation of current forecasts only when certain necessary conditions have been met:

(a) The Accuracy Record includes forecasts made under roughly similar economic conditions as the current forecasts;

(b) The industrial classification and the composition of the sample has remained approximately constant;

(c) The same projection procedures have been used.

In respect to condition (a), no attempt has been made to limit the period to which the accuracy record measures refer, so that it would be one during which economic conditions were roughly similar to those currently prevailing. Condition (b), on the other hand has been met almost entirely, while condition (c) has not been met by certain industries.

In the following industries the projection procedure has changed significantly, over the period of time covered by the Accuracy Record, so that the statement of accuracy should be used with extreme caution in an evaluation of these current forecasts:

(1) Leather
(2) Mining of Fuels
(3) Miscellaneous Manufacturing
(4) Printing and Publishing
(5) Railway Rolling Stock
(6) Tobacco
(7) Department Stores and Mail Order Houses

NOTES

NOTES

(1) The following data are provided as a guide to the interpretation of the projected employment indices for the Manufacturing Industries: for April 1, and July 1, 1956.

(a) Average percentage difference between actual and projected employment indices:

Three-month projections for	
April 1 target dates 1952 to 1955	1.22
All target dates Jan.1,1952 to Oct.1,1955	1.99
Six-month projections for	
July 1 target dates 1952 to 1955	2.25
All target dates Jan.1,1952 to Oct.1,1955	2.81

(b) Ratio of the correct predictions of the direction of change (from projection date to target date) to all predictions over the same interval.

Three-month projections for	
April 1 target dates 1952 to 1955	4/4
All target dates Jan.1,1952 to Oct.1,1955	15/16
Six-month projections for	
July 1 target dates 1952 to 1955	4/4
All target dates Jan.1,1952 to Oct.1,1955	13/16

(2) A detailed discussion of the projection procedures which have been used in the derivation of the forecasts published in this report is included in the section entitled "Concepts and Methods", under the heading "Projection Procedures".

(3) The year-to-year percentage change in manufacturing is computed from a strike adjusted index of 111.7 for July 1, 1955. A strike was in progress in the chemical products industry at that date.

All strike adjustments were made by increasing the reported number of employees (E.&P.) in the affected industry by the number of employees reported on strike or laid off because of the strike, by the Economics and Research Branch, Department of Labour. These strike adjusted employment figures for the industry were divided by the base period employment of the industry on the date for which the adjustment was made. Strike adjustments were made for all industries in which one per cent or more of total employment in the industry was involved.

(4) A description of the methods by which accuracy has been measured, and some indications of the interpretations which might be made from the Summary Accuracy Records for each industry, are provided in the section of this report entitled "Concepts and Methods". All measurements of accuracy are based upon strike adjusted indexes of actual employment at the projection and target dates.

(5) The forecasts for this industry are based solely on the forecasts made by the Imperial Tobacco Company. It is hoped that either additional establishments can be brought into the sample or that an alternative forecasting procedure will prove more adequate.

(6) The forecasts for this industry are projections of an index of the actual employment of the establishments in the E.F.S. sample, rather than of the index published in E.&P.

For a detailed discussion of the technique which has been used, and an explanation as to why it has been found necessary, see the previous section on "Projection Procedures". Accuracy also is measured in terms of the ability of the aggregated forecasts of the sample establishments to predict their own aggregate employment.

(7) The employment projections for department stores and mail order houses are again included, after being omitted from the Fourth Report for 1955. The "Standard Procedure" is now used in computing employment projections. No accuracy data are shown, because the forecasts were formerly derived entirely from the E.F.S. sample.